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THESIS

**ASSESSING GRANT ALLOCATION METHODS FOR
FEDERAL HOMELAND SECURITY URBAN AREA
ASSISTANCE FUNDING**

by

Craig Mohar

December 2015

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**ASSESSING GRANT ALLOCATION METHODS FOR FEDERAL HOMELAND
SECURITY URBAN AREA ASSISTANCE FUNDING**

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ABSTRACT

Federal grant assistance from the Department of Homeland Security (DHS) is critical for building and sustaining preparedness in urban areas. According to the *9/11 Commission Report*, “Throughout the government, nothing has been harder for officials—executive or legislative—than to set priorities, making hard choices in allocating limited resources.” The purpose of this thesis is to explore other viable options for allocating grant assistance to urban areas to reduce risk. A case study of the United Kingdom’s grant allocation approach provides a comparative analysis for DHS funding. Components of the UK’s allocation model, such as directly funding public safety and assessing relative need, could be applied in the United States as a pilot study. Similar to the Department of Justice’s direct-funded, community-oriented policing program, DHS funding could be allocated to metropolitan statistical areas to address specific national threat priorities, thereby aligning funding with risk, enhancing regional collaboration, and leveraging limited resources.

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TABLE OF CONTENTS

| | | |
|-------------|---|-----------|
| I. | INTRODUCTION..... | 1 |
| A. | PROBLEM STATEMENT | 1 |
| B. | RESEARCH QUESTIONS..... | 4 |
| C. | CHAPTER OVERVIEW | 4 |
| D. | RESEARCH METHODOLOGY | 4 |
| II. | LITERATURE REVIEW | 7 |
| A. | FEDERAL GRANT BUDGET PROCESSES..... | 7 |
| B. | RISK-BASED ALLOCATION METHODS | 11 |
| C. | ALTERNATIVE GRANT ALLOCATION APPROACHES..... | 13 |
| III. | FEDERAL GRANT ASSISTANCE PROGRAMS..... | 17 |
| A. | APPROPRIATION PROCESS | 19 |
| B. | HOMELAND SECURITY GRANT CHARACTERISTICS..... | 19 |
| C. | URBAN AREAS ELIGIBLE FOR GRANTS | 21 |
| D. | BLOCK GRANTS | 24 |
| E. | SUMMARY | 25 |
| IV. | FEDERAL ASSISTANCE GRANT ALLOCATION METHODOLOGY | 27 |
| A. | THREAT COMPONENT | 31 |
| B. | VULNERABILITY INDEX..... | 33 |
| C. | CONSEQUENCE..... | 35 |
| D. | VULNERABILITY ASSESSMENT | 38 |
| V. | UNITED KINGDOM CASE STUDY | 41 |
| A. | UNITED KINGDOM APPROACH..... | 43 |
| B. | POLICE FUNDING ANALYSIS | 45 |
| C. | APPLICABILITY FOR THE UNITED STATES | 48 |
| D. | CONCLUSION | 51 |
| VI. | RECOMMENDATIONS..... | 53 |
| A. | THREAT COMPONENT | 53 |
| B. | VULNERABILITY INDEX..... | 54 |
| C. | CONSEQUENCE INDEX..... | 54 |
| D. | NATIONAL INFRASTRUCTURE INDEX..... | 55 |
| E. | UNITED KINGDOM GRANT ALLOCATION APPROACH | 55 |
| F. | FUTURE RESEARCH CONSIDERATIONS | 57 |

| | |
|--|-----------|
| G. CONCLUSIONS | 59 |
| LIST OF REFERENCES..... | 61 |
| INITIAL DISTRIBUTION LIST | 67 |

LIST OF FIGURES

| | | |
|-----------|--|----|
| Figure 1. | DHS FY 2016 Percent of Budget Authority by Organization | 18 |
| Figure 2. | Grant Allocation Factors | 29 |
| Figure 3. | Vulnerability Component..... | 33 |
| Figure 4. | Consequence Index | 35 |
| Figure 5. | State and Local Government Revenue Sources in the United States..... | 42 |
| Figure 6. | UK Principal Funding Sources 2011–2012 | 46 |

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LIST OF TABLES

| | | |
|----------|---|----|
| Table 1. | Distributive Politics and Homeland Security Grant Allocations, 2004–6..... | 20 |
| Table 2. | Relative Risk versus Absolute Risk..... | 30 |

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LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|-------|--|
| COP | Community Oriented Policing |
| CRS | Congressional Research Service |
| DCLG | Department for Communities and Local Government |
| DHS | Department of Homeland Security |
| DOJ | Department of Justice |
| FBI | Federal Bureau of Investigation |
| FEMA | Federal Emergency Management Agency |
| FY | fiscal year |
| GAO | Government Accountability Office |
| GDP | gross domestic product |
| IP | Infrastructure Protection |
| MI5 | British Military Intelligence |
| MPS | Metropolitan Police Service |
| MSA | metropolitan statistical area |
| NIPP | National Infrastructure Protection Plan |
| NPGP | National Preparedness Grant Program |
| NRC | National Research Council |
| OMB | Office of Management and Budget |
| PAF | Police Allocation Formula |
| PAWG | Police Allocation Formula Working Group |
| THIRA | Threat and Hazard Identification and Risk Assessment |
| UASI | Urban Area Security Initiative |
| UK | United Kingdom |
| WAG | Welsh Assembly Government |

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EXECUTIVE SUMMARY

Federal grant assistance from the United States Department of Homeland Security (DHS) is critical for building and sustaining preparedness in urban areas.¹ The top funded homeland security grant program for state and local government is the Urban Area Security Initiative (UASI), which allocates funding to the nation's largest metropolitan areas. In fiscal year (FY) 2015, 28 urban areas received \$587 million in federal funding through the UASI grant program.² From FYs 2007 to 2015, the number of eligible urban areas awarded homeland security funding has ranged from 25 to 64.³ The ability of local governments to fund homeland security programs is essential to national preparedness. As grant funding has fluctuated, the process of grant allocation has significant implications for the nation's largest urban areas.

The purpose of this research was to explore other viable options for allocating grant assistance to urban areas to reduce risk. Based on an evaluation of the process DHS and Federal Emergency Management Agency (FEMA) use to allocate grant funding, what other approaches, ideas or methods are worth considering? What options would help to more effectively align limited budgets with risk and priorities? This thesis evaluates three main areas applicable to the UASI grant allocation methodology: federal grant budget processes, risk allocation methods, and alternative grant allocation approaches.

DHS grant funding supports a broad variety of homeland security programs that metropolitan regions use “to prevent, protect against, mitigate, respond to and recover

¹ FEMA, *Funding Opportunity Announcement (FOA): FY 2014 Homeland Security Grant Program (HSGP)* (Washington, DC: Department of Homeland Security, 2014), 4, http://www.fema.gov/media-library-data/1395161200285-5b07ed0456056217175fbdee28d2b06e/FY_2014_HSGP_FOA_Final.pdf.

² Department of Homeland Security, *Funding Opportunity Announcement (FOA) FY 2014 Homeland Security Grant Program (HSGP) Fiscal Year 2015 Homeland Security Grant Program, Appendix A–FY 2015 Program Allocations* (Washington, DC: Federal Emergency Management Agency, 2015), 31, http://www.fema.gov/media-library-data/1429291822887-7f203c9296fde6160b727475532c7796/FY2015HSGP_NOFO_v3.pdf.

³ bParati, “The Urban Area Security Initiative Program: Historical UASI Funding 2004–2015,” 5–7, accessed October 20, 2015, <http://bparati.com/Learn/Programs/HSGP/UASI>.

from acts of terrorism.”⁴ These grant funds help define and prioritize preparedness through regional planning and collaboration. According to the Congressional Research Service, the UASI grant allocation model was revised by Congress in FY 2007 to use a risk-based allocation model.⁵ In accordance with the *9/11 Commission Report*, the purpose was to establish a method for allocating federal funds “based on an assessment of threats and vulnerabilities.”⁶ This risk-based approach determines which urban areas are awarded grant funds. Although public law establishes the criteria for federal grant allocations, DHS and FEMA determine the process to allocate funding. The process to allocate funds, however, has not been validated by technical experts outside of DHS and does not take into consideration differences in vulnerability.⁷ Therefore, for grant risk allocation purposes, differences among urban area vulnerabilities are not included in the DHS grant allocation determination. Of particular concern is how well DHS funding aligns with risk, needs, and national priorities.

A case study of the United Kingdom’s grant allocation approach for law enforcement demonstrates how DHS grant funding could be allocated differently in the United States. Based on the extensive terrorism cases the United Kingdom has experienced, its funding model provides insight into how it has been able to allocate resources over a prolonged period of changing threats.⁸ Various components of the UK grant allocation system could be instituted in the United States to help align threats, budgets, and national priorities with risk. For example, the United Kingdom uses a formula allocation process that includes factors based on relative need and work load

⁴ U.S. Department of Homeland Security, *Notice of Funding Opportunity: Fiscal Year 2015 Homeland Security Grant Program* (Washington, DC: Federal Emergency Management Agency, 2015), 2, http://www.fema.gov/media-library-data/1429291822887-7f203c9296fde6160b727475532c7796/FY2015HSGP_NOFO_v3.pdf.

⁵ Shawn Reese and Steven Maguire, *Distribution of Homeland Security Grants in FY2007 and P.L. 110-53, Implementing Recommendations of the 9/11 Act* (CRS Report No. RL34181) (Washington, DC: Congressional Research Service, 2009), CRS-6, <https://www.fas.org/crs/homsec/RL34181.pdf>.

⁶ Thomas Kean and Lee Hamilton, *National Commission on Terrorist Attacks upon the United States, The 9/11 Commission Report* (New York: W.W. Norton & Company, 2004), 396.

⁷ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis* (Washington, DC: The National Academies Press, 2010), 72.

⁸ Paul Wilkinson, *Homeland Security in the UK: Future Preparedness for Terrorist Attack since 9/11* (London and New York: Routledge Taylor and Francis Group, 2007), 31.

between agencies, which ensures a more equitable distribution of funds for local governments with different levels of capabilities. The UK's grant allocation model also funds specifically targeted activities, such as counter terrorism.⁹

Although the United Kingdom does not have an overarching homeland security office, the UK Police Allocation Formula Working Group oversees modifications to its grant allocation model.¹⁰ Funding is provided directly to police agencies instead of through programs administered by state agencies. This direct funding reduces the administrative burden on the grantee and streamlines the allocation process. The Department of Justice (DOJ) Community Oriented Policing Program is an example of a grant program in the United States that provides direct funding to law enforcement for the specific purpose of community policing. A pilot of this program, modeled after the UK and DOJ programs, could be tested for applicability and effectiveness in the United States to directly allocate grants that target specific terrorism activities.

Recommendations presented in this thesis are some approaches that could be applied to improve the DHS and FEMA grant allocation process. First, validating the weighting factors used to determine the urban area risk rankings through an independent peer review will ensure funding allocations are aligned with risk. Second, providing more transparency into the threat and vulnerability assessment process will assure urban areas that their relative risk rankings reflect the latest threat information and help provide a better overall understanding of resource gaps. Using expert peer reviews to validate the critical asset criteria and development process will result in better risk management and resource allocation decisions. Lastly, evaluating the direct allocation of funding for urban areas based on the UK model may help align needs more effectively with funding to enhance program capabilities. This approach could help provide a flexible grant allocation model to address the evolving threat environment. The grant funding process

⁹ *The Minister of State Policing, Criminal Justice and Victims, House of Commons: Written Statement (HCWS129)* (2014) (Written Statement made by The Minister of State for Policing, Criminal Justice and Victims (Mike Penning)) Police Grant Report England and Wales 2015/16, 3, <http://www.parliament.uk/documents/commons-vote-office/December%202014/17%20December/12-Home-PoliceGrant.pdf>.

¹⁰ United Kingdom Home Office, "Crime and Policing: Guide to the Police Allocation Formula," March 26, 2013, 2, <https://www.gov.uk/guidance/guide-to-the-police-allocation-formula>.

would be more efficient, if a layer of program administration were removed from the process, and funding were applied directly to the metropolitan statistical area. Addressing these issues will help urban areas better understand the grant allocation process to build and sustain programmatic needs.

I. INTRODUCTION

Federal grant assistance from the United States Department of Homeland Security (DHS) is critical for building and sustaining preparedness in urban areas.¹ In fiscal year (FY) 2015, 28 urban areas received \$587 million in federal funding through the Urban Area Security Initiative (UASI) grant program.² From FYs 2007 to 2015, the number of eligible urban areas awarded homeland security funding has ranged from 25 to 64.³ According to the Congressional Research Service:

State and local governments have primary responsibility for most domestic public safety functions. When facing difficult fiscal conditions, state and local governments may reduce resources allocated to public safety and, consequently, homeland security preparedness, due to increasing pressure to address tight budgetary constraints and fund competing priorities.⁴

The ability of local governments to fund homeland security programs is essential to national preparedness. Consequently, as the grant funding has fluctuated among urban areas, the process of grant allocation has significant implications for the nation's largest urban areas.

A. PROBLEM STATEMENT

According to the *9/11 Commission Report*, “Throughout the government, nothing has been harder for officials—executive or legislative—than to set priorities, making hard

¹ FEMA, *Funding Opportunity Announcement (FOA): FY 2014 Homeland Security Grant Program (HSGP)* (Washington, DC: Department of Homeland Security, 2014), 4, http://www.fema.gov/media-library-data/1395161200285-5b07ed0456056217175fbdee28d2b06e/FY_2014_HSGP_FOA_Final.pdf.

² Department of Homeland Security, *Funding Opportunity Announcement (FOA) FY 2014 Homeland Security Grant Program (HSGP) Fiscal Year 2015 Homeland Security Grant Program, Appendix A—FY 2015 Program Allocations* (Washington, DC: Federal Emergency Management Agency, 2015), 31, http://www.fema.gov/media-library-data/1429291822887-7f203c9296fde6160b727475532c7796/FY2015HSGP_NOFO_v3.pdf.

³ bParati, “The Urban Area Security Initiative Program: Historical UASI Funding 2004–2015,” 5–7, accessed October 20, 2015, <http://bparati.com/Learn/Programs/HSGP/UASI>.

⁴ William L. Painter, *Department of Homeland Security: FY2015 Appropriations* (CRS Report No. R43796) (Washington, DC: Congressional Research Service, 2014), 74, <https://www.fas.org/sgp/crs/home/sec/R43796.pdf>.

choices in allocating limited resources.”⁵ This concern highlights the main question of how to allocate limited resources to reduce risk. The *Homeland Security Act of 2002* authorized the expansion of federal assistance for local government preparedness programs.⁶ In 2007, this act, as amended by Pub. L. No. 110-53 (*9/11 Act*), included changes based on the recommendations of the 9/11 Commission and specified risk criteria for allocating grant funding.⁷ Although public law establishes the criteria for federal grant allocations, the DHS and the Federal Emergency Management Agency (FEMA) determine the process to allocate funding.

Eligible metropolitan statistical areas (MSAs), as defined by the Office of Management and Budget, depend on federal grant assistance to implement regional homeland security programs.⁸ This funding supports a broad variety of homeland security programs that metropolitan regions use to prevent, prepare, mitigate, respond to, and recover from terrorist and natural hazard events.⁹ These grant funds help define and prioritize preparedness through regional planning and collaboration.

Given the ongoing federal budget deficit and the evolving threat environment, how homeland security funds are allocated is important to federal, state, and local governments to address risk. However, the process to allocate funds has not been validated by technical experts outside of DHS and does not take into consideration

⁵ Thomas Kean and Lee Hamilton, *National Commission on Terrorist Attacks upon the United States, The 9/11 Commission Report* (New York: W.W. Norton & Company, 2004), 395.

⁶ Shawn Reese, *Department of Homeland Security Assistance to States and Localities: A Summary and Issues for the 111th Congress* (CRS Report No. R40246) (Washington, DC: Congressional Research Service, 2009), 3, <https://www.fas.org/sgp/crs/homesecc/R40246.pdf>.

⁷ Shawn Reese and Steven Maguire, *Distribution of Homeland Security Grants in FY2007 and P.L. 110-53, Implementing Recommendations of the 9/11 Act* (CRS Report No. RL34181) (Washington, DC: Congressional Research Service, 2009), CRS-6.

⁸ Jennifer D. Williams and James R. Riehl, *Metropolitan Area Designations by OMB: History, Current Definitions, and Uses* (CRS Report No. RL32675) (Washington, DC: Congressional Research Service, November 15, 2004), CRS-2, <http://congressionalresearch.com/RL32675/document.php?study=Metro+Area+Designations+by+OMB+History+Current+Definitions+and+Uses>.

⁹ U.S. Department of Homeland Security, *Notice of Funding Opportunity: Fiscal Year 2015 Homeland Security Grant Program* (Washington, DC: Federal Emergency Management Agency, 2015), 2, http://www.fema.gov/media-library-data/1429291822887-7f203c9296fde6160b727475532c7796/FY2015HSGP_NOFO_v3.pdf.

differences in regional vulnerability.¹⁰ Although FEMA provides a broad overview of its allocation methods and data sources, it does not provide the specific details of analyses to local decision makers. MSA-eligible agencies are not provided the details on how the grant allocation process is applied.

National reports, such as the *2014 Quadrennial Homeland Security Review*, provide details on national threats and emerging trends, as well as identify budget drivers but do not specifically prioritize DHS goals with federal budgets.¹¹ According to congressional testimony from Henry H. Willis, “aligning budgets with strategic guidance and risk management will make the Department more effective.”¹² When MSAs are awarded grant funds, large differences occur between individual MSA allocation levels.¹³ These differences in funding levels affect the capabilities of the lower funded urban areas to implement homeland security programs. Considering that the grant allocation process has not been independently validated, how should grant funding be allocated to maximize effectiveness? The focus of the research addresses the following areas:

- Public law criteria
- Budget processes and methods
- Risk allocation model
- Alternative allocation approaches

Ideally, the process to allocate limited resources is to determine the priorities, evaluate the risk, and develop an independent, validated allocation process. In the last several years, FEMA has proposed changes to consolidate the grant assistance programs;

¹⁰ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis* (Washington, DC: The National Academies Press, 2010), 72.

¹¹ *Stakeholder Perspectives on Priorities for the Quadrennial Homeland Security Review*, Hearing before the Subcommittee on Oversight and Management Efficiency of the Committee on Homeland Security House of Representatives, 113th Cong., 2 (2014) (testimony of Honorable Jeff Duncan), 7, <http://www.gpo.gov/fdsys/pkg/CHRG-113hhrg90882/html/CHRG-113hhrg90882.htm>.

¹² *Stakeholder Perspectives on Priorities for the Quadrennial Homeland Security Review*, Hearing before the Subcommittee on Oversight and Management Efficiency of the Committee on Homeland Security House of Representatives, 113th Cong., 2 (2014) (testimony of Henry H. Willis), 29, <http://www.gpo.gov/fdsys/pkg/CHRG-113hhrg90882/html/CHRG-113hhrg90882.htm>.

¹³ Department of Homeland Security, *Funding Opportunity Announcement (FOA) FY 2014 Homeland Security Grant Program (HSGP) Fiscal Year 2015 Homeland Security Grant Program, Appendix A–FY 2015 Program Allocations*, 31.

however, Congress consistently denies the revisions. Consequently, the challenge for DHS and FEMA is determining what other approaches are available to build cooperative capacity without revising public law. This thesis offers other available options through revisions to the current grant system.

B. RESEARCH QUESTIONS

The purpose of this thesis is to explore other viable options to allocate grant assistance to urban areas to reduce risk. Based on the evaluation of the process DHS and FEMA use to allocate grant funding, what other approaches, ideas or methods are worth considering? What options would help to align limited budgets more effectively with risk and priorities?

C. CHAPTER OVERVIEW

To answer these questions, the subsequent chapters explore the grant allocation process in further detail. Chapter II provides an evaluation of the current literature divided into three separate categories: federal grant budget processes, risk-based allocation methods, and alternative grant allocation approaches. Chapter III provides a background analysis of the federal grant assistance process and homeland security grant characteristics. In Chapter III, the DHS risk-based allocation formula is examined through a qualitative analysis. A comparative case study of the United Kingdom (UK)'s grant allocation formula for law enforcement is analyzed in Chapter V. Chapter VI concludes with recommendations to improve the grant allocation process and offers several alternative options. The final section of the chapter discusses areas for future research considerations.

D. RESEARCH METHODOLOGY

The thesis research is exploratory and descriptive in its design. According to *Business Research Methods*, "Exploratory studies are conducted for three main reasons, to analyse [sic] a problem situation, to evaluate alternatives and to discover new ideas."¹⁴

¹⁴ S. Sreejesh, Sanjay Mohapatra and M. R. Anusree, *Business Research Methods: An Applied Orientation* (New York: Springer, 2014), 31, (eBook), <http://www.springer.com/us/book/9783319005386>.

Exploratory and descriptive research is used to gain further information, background and insight into a specific subject and then describe the relationship of policies. The objective is to help explain relationships among policies to “gain deeper insights and establish priorities for further research.”¹⁵

This thesis explores how the urban area grant allocation process under DHS can be improved. Using appreciative inquiry, this thesis evaluates what methods work well and can be expanded upon to build capacity. The research methodology demonstrates other models to allocate grant funding. The research steps are as follows:

- To examine the current federal DHS grant assistance process;
- To evaluate research based options;
- To explore other approaches for grant allocation;
- To consider “best practice” models; and
- To develop recommendations based on revisions to the current process, other potential concepts and what is realistic or useful within the federal grant assistance framework.

Data collection included secondary sources, discussions with practitioners in the field, and case study analysis. The thesis is based extensively on secondary sources of information, although several primary research studies are used in the analysis of data. The main sources of data collection for this study fall into the following classifications:

- Government publications and reports
- Public law and congressional testimony
- Independent research studies
- Federal, foreign and local government budget documents

A case study from the United Kingdom is used to evaluate how other approaches to grant funding could be applied in the United States. As described in *How to Research*, “case studies are often used to illustrate problems or indicate good practices...and its

¹⁵ Sreejesh, Mohapatra, and Anusree, *Business Research Methods: An Applied Orientation*, 26.

linkage to a body of theory and practice in the literature.”¹⁶ The United Kingdom provides a comparative analysis of how funding could be allocated differently in the United States. Based on the extensive terrorism cases the United Kingdom has experienced, its funding model provides insight into how it has been able to allocate resources based on changing threats over a prolonged period.¹⁷

Informal discussions with practitioners in the field provided background information and concerns regarding the homeland security grant allocation process, and its impact upon local and regional government agencies. This insight helped guide the direction of the thesis research. One consistent theme mentioned by homeland security managers is how the process of grant allocation is somewhat a “black box,” and what is included in determining relative risk rankings among urban areas is not clearly understood. In summary, the methodology of the research uses policy analysis to evaluate program information, explore the associated grant allocation issues, and describe new potential approaches for consideration.

¹⁶ Loraine Blaxter, Christina Hughes, and Malcolm Tight, *How to Research*, 4th. ed. (Buckingham and Philadelphia: Open University Press, 2001), 73.

¹⁷ Paul Wilkinson, *Homeland Security in the UK: Future Preparedness for Terrorist Attack since 9/11* (London and New York: Routledge Taylor and Francis Group, 2007), 31.

II. LITERATURE REVIEW

This literature review summarizes relevant knowledge regarding the allocation of grant funding awarded through DHS's UASI program. The literature reviewed comes primarily from government sources that evaluated the DHS grant allocation methods. Although significant research has been conducted to explore the thesis topic, the literature review discusses only the main research findings. This literature review explores three main areas applicable to the UASI grant allocation methodology: federal grant budget processes, risk allocation methods, and alternative grant allocation approaches.

A. FEDERAL GRANT BUDGET PROCESSES

The main source of budget and grant literature research comes from government documents and reports covering federal appropriations, funding methodology, and risk management. The extensive sources of secondary research, especially from the U.S. Government Accountability Office (GAO) and Congressional Research Service (CRS), provide details on the status of homeland security grant programs, funding cycles, and future considerations. Additional explanatory research was obtained through the review of DHS and FEMA grant guidance, public law, and congressional testimony.

Since 9/11, the process for allocating homeland security funding has evolved. According to the CRS, the expansion of grant funding awarded to urban areas increased with the *Homeland Security Act of 2002* (Pub. L. No. 107-296).¹⁸ This act was amended in 2007 to implement recommendations of the 9/11 Commission.¹⁹ *The 9/11 Commission Report* is often cited in reports regarding the allocation of grant funding and is frequently used to justify the current budget methodology. According to *The 9/11 Commission Report*, "Throughout the government, nothing has been harder for officials—executive or

¹⁸ Reese, *Department of Homeland Security Assistance to States and Localities: A Summary and Issues for the 111th Congress*, 3.

¹⁹ Reese and Maguire, *Distribution of Homeland Security Grants in FY2007 and P.L. 110-53, Implementing Recommendations of the 9/11 Act*, CRS-6.

legislative—than to set priorities, making hard choices in allocating limited resources.”²⁰ According to the CRS, the UASI grant allocation model was revised by Congress to use a risk-based allocation model.²¹ In accordance with *The 9/11 Commission Report*, the purpose was to establish a method for allocating federal funds “based on an assessment of threats and vulnerabilities.”²² This risk-based approach determines which urban areas are awarded grant funds.

Various researchers have questioned the cost effectiveness of homeland security grant funding in reducing national risk. For example, according to John Mueller and Mark G. Stewart, “Homeland security expenditures invested in a wide range of more cost effective risk reduction programs ... would probably result in far more significant benefits to society.”²³ However, according to Erica Chenoweth and Susan E. Clarke, “In a very real sense, city security is a core national security issue but a local responsibility; in the United States, American cities and counties control and finance the police, fire, public health, and emergency services most needed in the face of terrorist attacks.”²⁴ According to a 2013 CRS report, DHS funding only represents a small portion of overall state and local government expenditures, estimated at a little more than one percent of total public safety spending.²⁵

The paradox identified in the literature is whether local governments could continue to support homeland security programs without federal grant assistance. According to a 2014 CRS report, “When facing difficult fiscal conditions, state and local

²⁰ Kean and Hamilton, *National Commission on Terrorist Attacks upon the United States, The 9/11 Commission Report*, 395.

²¹ Reese and Maguire, *Distribution of Homeland Security Grants in FY2007 and P.L. 110-53, Implementing Recommendations of the 9/11 Act*, CRS–6.

²² Kean and Hamilton, *National Commission on Terrorist Attacks upon the United States, The 9/11 Commission Report*, 396.

²³ John Mueller and Mark G. Stewart, *Terror, Security and Money: Balancing the Risks, Benefits, and Costs of Homeland Security* (Oxford: Oxford University Press, 2011), 182.

²⁴ Erica Chenoweth and Susan E. Clarke, “All Terrorism is Local: Resources, Nested Institutions, and Governance for Urban Homeland Security in the American Federal System,” *Political Research Quarterly* 63 (2009): 496, doi:10.1177/1065912909334426.

²⁵ William L. Painter, *Department of Homeland Security: FY2014 Appropriations* (CRS Report No. R43147) (Washington DC: Congressional Research Service, 2013), 59, <http://defense-legislation.blogspot.com/2013/08/department-of-homeland-security-fy2014.html>.

governments may reduce resources allocated to public safety and, consequently, homeland security preparedness.”²⁶ This point of view is validated from local urban areas. For example, according to the Indianapolis Director of Public Safety David Riggs, “When the city lost UASI funding ... we just could not sustain our operations and had to make tough decisions in order to keep the most critical operations active.”²⁷ Therefore, the consensus from state and local governments is that the process for determining and allocating federal assistance is essential for homeland security preparedness.

Considering the importance of homeland security funding to local governments, some of the central issues regarding homeland security grant funding seem to be left unaddressed. For example, what type of grant is the most effective in allocating funding and what changes to policy should be considered? According to CRS, DHS grant funding is considered block grant funding, which is a funding mechanism Congress uses to assist state and local government to address broad public purposes.²⁸ According to CRS, “accountability for results can be difficult when funding is allocated based on formulas and population counts rather than performance or meeting demonstrated need.”²⁹ A gap in the research literature is whether further evaluation should be considered for other funding approaches that would streamline the grant management, allocation, and reporting process.

The issue of funding methods also connects to the concern regarding aligning grant funding with national priorities. According to Shawn Reese, a CRS analyst in emergency management and homeland security policy:

Congress and policymakers are responsible for funding homeland security priorities. These priorities need to exist, to be clear and cogent, in order for

²⁶ Painter, *Department of Homeland Security: FY2015 Appropriations*, 74.

²⁷ *Committee on Homeland Security House of Representatives. Stakeholder Assessments of the Administration’s National Preparedness Grant Program Proposal, Hearing before the Subcommittee on Emergency Preparedness, Response, and Communications of the Committee on Homeland Security House of Representatives*, Serial No. 113-66, 113th Cong., 2 (2014), 36, <http://www.gpo.gov/fdsys/pkg/CHRG-113hhrg89446/pdf/CHRG-113hhrg89446.pdf>.

²⁸ Robert Jay Dilger and Eugene Boyd, *Block Grants: Perspectives and Controversies* (CRS Report No. R40486) (Washington, DC: Congressional Research Service, 2014), 1, <https://www.fas.org/sgp/crs/misc/R40486.pdf>.

²⁹ *Ibid.*, 11.

funding to be most effective. Presently, as DHS itself has stated, homeland security is not funded on clearly defined priorities. In an ideal scenario, there would be a clear definition of homeland security, and a consensus about it; as well as prioritized missions, goals, and activities.³⁰

How well DHS funding aligns with risk, need, and national priorities is a concern that requires further study. According to a 2013 GAO report, in FYs 2013 and 2014, the President's budget proposed establishing the National Preparedness Grant Program (NPGP), a consolidation of 16 grants into a single program to improve their effectiveness and reduce redundancies; however, Congress did not approve the grant consolidation proposal.³¹ Furthermore, over the last three years, congressional testimony has consistently challenged this consolidation request.³²

According to congressional testimony from April 2014, Chairwoman Susan W. Brooks, Subcommittee Member on Emergency Preparedness, Response and Communications, questioned the consolidation of the homeland security grant programs in a letter to FEMA Director Craig Fugate.³³ According to her letter, "Considering the impact this proposal would have on the way first responders receive grants to attain, maintain, and sustain core capabilities, there is no room for uncertainty." In other words, without knowing exactly how the proposal will affect the current process, change is unlikely. Consequently, based on the literature, changing the grant process to allocate funding into one risk-based allocation does not appear to be a realistic option.

³⁰ *Committee on Homeland Security House of Representatives, "Assessing DHS 10 Years Later: How Wisely Is DHS Spending Taxpayer Dollars?"* (2013) (written statement of Shawn Reese), 2, <http://docs.house.gov/meetings/HM/HM09/20130215/100263/HHRG-113-HM09-Wstate-ReeseS-20130215.pdf>.

³¹ David C. Maurer, *National Preparedness: FEMA Has Made Progress, but Additional Steps Are Needed to Improve Grant Management and Assess Capabilities* (GAO-13-637T) (Washington, DC: U.S. Government Accountability Office), 6, <http://www.gao.gov/products/GAO-13-637T>.

³² *Committee on Homeland Security House of Representatives. Stakeholder Assessments of the Administration's National Preparedness Grant Program Proposal, Hearing before the Subcommittee on Emergency Preparedness, Response, and Communications of the Committee on Homeland Security House of Representatives*, 1.

³³ *Ibid.*, 2.

B. RISK-BASED ALLOCATION METHODS

Another main area of the literature review is on risk allocation methods and approaches. A substantial number of research reports are written on homeland risk analysis and evaluation. Congress, through public law, has established the criteria for determining risk analysis, but how that formula is implemented determines the relative risk ranking of high-risk urban areas.³⁴

In 2008, the National Research Council (NRC) of the National Academies, a non-profit advisory organization to the federal government, “established the Committee to Review the Department of Homeland Security’s Approach to Risk Analysis to assess how the DHS is building its capabilities in risk analysis to inform decision making.”³⁵ In 2010, after 15 months of evaluating the process DHS uses to allocate grant funding, the Committee published its results.³⁶ According to the report, the most critical finding is that although the risk methodology was determined generally appropriate “for decomposing risk and organizing information ... with the exception of risk analysis for natural disaster preparedness, the committee did not find any DHS risk analysis capabilities and methods that are yet adequate for supporting DHS decision making, because their validity and reliability are untested.”³⁷ Consequently, the Committee recommended, “DHS should strengthen its scientific practices, such as documentation, validation, and peer review by technical experts.”³⁸ Regarding homeland security grants, the Committee recommended:

FEMA should undertake an external peer review by technical experts outside DHS of its risk-informed formulas for grant allocation to identify any logical flaws with the formulas, evaluate the ramifications of the

³⁴ United States Code Subchapter XV-Homeland Security Grants, Section 604: Urban Area Security Initiative, 180.

³⁵ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 1.

³⁶ *Ibid.*, vii.

³⁷ *Ibid.*, 2.

³⁸ *Ibid.*, 3.

choices of weightings and parameters in the consequence formulas, and improve the transparency of these crude models of risk.³⁹

If the grant allocation approach is not validated and transparent, can grant measurement be determined? Transparency of the grant allocation and risk analysis process was frequently addressed by both the GAO and CRS reports that provided specific details on how threat, critical infrastructure, and risk analyses were conducted by DHS. The consensus was that more clarity regarding the specifics of the process would help decision makers to understand better how risk and grant funding is allocated. According to a 2007 CRS report, often cited by other sources:

While safeguarding the intelligence, law enforcement, and other sensitive information weighted and analyzed through DHS's risk methodology, disclosure of the mathematical equation used to determine threat, vulnerability, and consequence may allow all applicants and stakeholders to understand and have a basis to confirm or challenge the results prior to funds being allocated.⁴⁰

Better understanding of risk will help decision makers evaluate terrorism uncertainties, vulnerabilities, and resource strategies.⁴¹

The issue of grant allocations was evaluated further in another study that examined homeland grant funding from the viewpoint of distributive politics. In 2010, University of Kansas Associate Professor Holly T. Goerdel examined the issue of using risk as a method of allocating grant funds.⁴² The study examined the political influence in the allocation of homeland security grant funding.⁴³ According to Goerdel, having a risk-based methodology to allocate funds appears generally to target funding more effectively

³⁹ Ibid., 6.

⁴⁰ Todd Masse, Siobhan O'Neil, and John Rollins, *The Department of Homeland Security's Risk Assessment Methodology: Evolution, Issues, and Options for Congress* (CRS Report No. RL33858) (Washington, DC: Congressional Research Service, 2007), CRS-24, <http://www.fas.org:8080/sgp/crs/homsec/RL33858.pdf>.

⁴¹ National Research Council of the National Academies, *Review of the Department of Homeland Security's Approach to Risk Analysis*, 113.

⁴² Holly T. Goerdel, "Politics versus Risk in Allocations of Federal Security Grants," *Publius: The Journal of Federalism* 43, no. 4 (2012): 605, <http://publius.oxfordjournals.org/content/early/2012/12/22/publius.pjs053.abstract>.

⁴³ Ibid., 600.

than formula-driven allocation methods.⁴⁴ However, the key appears to be ensuring the process is validated and measured.⁴⁵ Goerdel, although evaluating political influence in the grant allocation process, seems to agree with the finding from the NRC of using risk as an appropriate methodology. The difference between the studies, however, is that NRC could not confirm the DHS risk model is an acceptable methodology for terrorism risk.⁴⁶ Both studies, however, agree that a targeted risk-based approach seems more effective, but the process must be validated.

In a June 2008 report, the GAO concluded that “DHS has constructed a reasonable methodology to assess risk and allocate funds within a given year.”⁴⁷ Based on the GAO report, the weaknesses in the DHS risk methodology is how vulnerability is measured in the formula.⁴⁸ According to the GAO, “DHS considered all states and urban areas equally vulnerable to a successful attack and assigned every state and urban area a vulnerability score of 1.0 in the risk model.”⁴⁹ This finding was also included in the NRC report; however, the concern was that FEMA does not have the resources to conduct nationwide vulnerability analyses.⁵⁰ Therefore, for grant allocation purposes, differences among MSA vulnerabilities are not included in the DHS grant allocation determination.

C. ALTERNATIVE GRANT ALLOCATION APPROACHES

Various sources of secondary literature from government reports have identified other potential approaches to allocating grant funding. These reports provide alternative models for funding homeland security programs. Several of these methods, discussed in

⁴⁴ Ibid., 614.

⁴⁵ Goerdel, “Politics versus Risk in Allocations of Federal Security Grants,” 620.

⁴⁶ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 2–3.

⁴⁷ U.S. Government Accountability Office, *Homeland Security: DHS Risk-Based Grant Methodology is Reasonable, but Current Version’s of Vulnerability Is Limited* (GAO-08-852) (Washington, DC: U.S. Government Accountability Office, 2008), 4, <http://www.gao.gov/products/GAO-08-852>.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 72.

the CRS reports, include unified approaches to budgeting.⁵¹ According to a 2013 CRS report, “More ‘unified’ budgeting approaches could facilitate the identification of overlaps and gaps among agencies’ efforts; enable more deliberate assignment of roles and responsibilities; catalyze closer collaboration; and provide greater transparency to help support congressional oversight.”⁵² However, the willingness to make this type of systemic change is unlikely, when considering, for example, the difficulty FEMA has had in consolidating its existing grant programs.⁵³

Other approaches identified by the CRS in 2007 outlined various options, from establishing a DHS risk assessment manager to creating a risk assessment center.⁵⁴ According to the CRS, “These tasks are relatively complex and, it could be argued, require the formation of a group of professional methodologists whose sole function is risk assessment.”⁵⁵ The risk analysis study conducted by the NRC in 2010 disagreed with idea of appointing a single risk manager, concluding that “Risk assessments are done for many issues. For a single entity to wisely and adequately address this broad range would require a large—perhaps separate—agency.”⁵⁶ The NRC instead recommended as an alternative “the development of a multidisciplinary risk analysis staff.”⁵⁷ The consensus from the literature is that the risk analysis process is complicated and must be well coordinated with stakeholders.⁵⁸

⁵¹ Catherine Dale, Nina M. Serafino, and Pat Towell, *A Unified National Security Budget? Issues for Congress* (CRS Report No. R42997) (Washington, DC: Congressional Research Service, 2013), 1, <https://www.fas.org/sgp/crs/natsec/R42997.pdf>.

⁵² Dale, Serafino, and Towell, *A Unified National Security Budget? Issues for Congress*, 1.

⁵³ *Committee on Homeland Security House of Representatives. Stakeholder Assessments of the Administration’s National Preparedness Grant Program Proposal, Hearing before the Subcommittee on Emergency Preparedness, Response, and Communications of the Committee on Homeland Security House of Representatives*, 1.

⁵⁴ Masse, O’Neil, and Rollins, *The Department of Homeland Security’s Risk Assessment Methodology: Evolution, Issues, and Options for Congress*, CRS–26.

⁵⁵ *Ibid.*

⁵⁶ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 92.

⁵⁷ *Ibid.*, 91.

⁵⁸ *Ibid.*, 92.

Reviewing the literature from other countries provides another approach for allocating grant funding worth examining. Based on UK government documents, comparative research was completed of their grant funding approaches for police agencies. Unlike the United States, the UK central government accounts for 76 percent of total police funding.⁵⁹ Although not feasible for the United States, the UK's grant allocation model considers work load, relative need,⁶⁰ and specific targeted terrorism activities.⁶¹ Although the United Kingdom does not have an overarching homeland security office, the UK Police Allocation Formula Working Group oversees modifications to their grant allocation model.⁶² In contrast, the U.S. grant allocation methodology is based on a relative risk model developed by DHS and FEMA; thus, a gap exists in the literature regarding how a different allocation model might work in the United States.

However, according to the CRS, the parliamentary system in the United Kingdom “influences government decisions regarding homeland security budgetary priorities [since] ... there is no strict separation of the executive and legislative branches in the UK.”⁶³ Exploring the use of some of the UK allocation methods may offer potential for the United States. Various components of the UK grant allocation system could be instituted in the United States to help align threats, budgets, and national priorities with risk. By providing more flexibility funded programs through the discretion of the homeland security secretary, further study could be initiated in the United States to evaluate the effectiveness of this approach.

⁵⁹ Timothy Brain, *Police Funding (England & Wales) 2011–2012* (Police Briefing Paper, No. 1) (Cardiff, Wales: Universities' Police Science Institute, 2011), 2, <http://www.openeyecommunications.com/wp-content/uploads/2011/09/UPSI-Police-Briefing-Paper-No-1-12-Aug-11.pdf>.

⁶⁰ United Kingdom Home Office, “Crime and Policing: Guide to the Police Allocation Formula,” March 26, 2013, 1. <https://www.gov.uk/guidance/guide-to-the-police-allocation-formula>.

⁶¹ *The Minister of State Policing, Criminal Justice and Victims, House of Commons: Written Statement (HCWS129)*, 3.

⁶² United Kingdom Home Office, “Crime and Policing: Guide to the Police Allocation Formula,” 2.

⁶³ Kristin Archick et al., *European Approaches to Homeland Security and Counterterrorism* (CRS Report No. RL33573) (Washington, DC: Congressional Research Service, 2006), CRS–41, <https://www.fas.org/sgp/crs/homsec/RL33573.pdf>.

In summary, the literature review provided detailed information in specific areas of grant management, federal budgets, risk analysis, national priorities, and funding allocations, but no specific viable solutions were discovered as how to align budgets better with priorities, risks, and performance results. The gaps in the literature are not in analyzing budgets, evaluating risk, or measuring performance, although more analysis is always useful. The gaps in the research concern the overall process of how well the budgets align with risk, risk aligns with grants, and grants align with national priorities and needs. This thesis provides further research into connecting the issues. Although no one solution exists, specific changes to grant allocation policies and procedures, and the direct allocation approach used in the United Kingdom, offers potential options for programs in the United States.

III. FEDERAL GRANT ASSISTANCE PROGRAMS

According to the *9/11 Commission Report*, “In a free-for-all over money, it is understandable that representatives will work to protect the interests of their home states or districts. But this issue is too important for politics as usual to prevail. Resources must be allocated according to vulnerabilities.”⁶⁴ How federal assistance grant funding is allocated affects the ability of urban areas “to prevent, protect against, mitigate, respond to, and recover from acts of terrorism.”⁶⁵ Within DHS’s federal assistance program for state and local preparedness, the four primary grants are the State Homeland Security Grant Program, the UASI, the Port Security Grant Program, and the Transit Security Grant Program.⁶⁶ The total enacted federal budget for DHS state and local grant programs in FY 2014 was nearly \$1.3 billion.⁶⁷ Among these programs, the state homeland security and UASI programs represented the largest share of the grant funding, accounting for approximately 84 percent of the FY 2014 grant award.⁶⁸ In FY 2014, the UASI program, with a budget of \$587 million, was the highest funded program.⁶⁹

The grant funding allocation for homeland security programs is considered part of the discretionary budget. The discretionary budget represents funding for government activities, such as defense, education, transportation, and government operations.⁷⁰ According to the CRS, “Discretionary spending is not mandated by existing law and is thus appropriated yearly by Congress through appropriations acts.”⁷¹ As shown in Figure 1, total grant funding represents approximately three percent of DHS’s total FY 2016

⁶⁴ Kean and Hamilton, *National Commission on Terrorist Attacks upon the United States, The 9/11 Commission Report*, 396.

⁶⁵ U.S. Department of Homeland Security, *Notice of Funding Opportunity: Fiscal Year 2015 Homeland Security Grant Program*, 2.

⁶⁶ Painter, *Department of Homeland Security: FY2015 Appropriations*, 75–76.

⁶⁷ *Ibid.*

⁶⁸ *Ibid.*, 76.

⁶⁹ *Ibid.*

⁷⁰ Jessica Tollestrup, *The Congressional Appropriations Process: An Introduction* (CRS Report No. R42388) (Washington, DC: Congressional Research Service, 2014), 1, <http://www.senate.gov/CRSReports/crs-publish.cfm?pid=%260BL%2BP%3C%3B3%0A>.

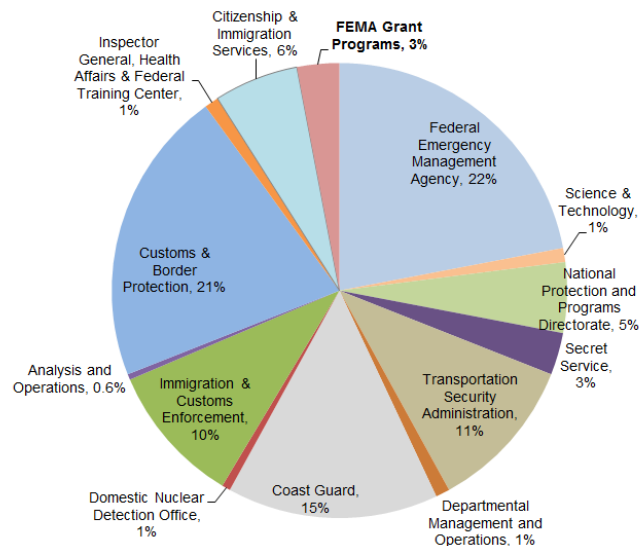
⁷¹ Painter, *Department of Homeland Security: FY2014 Appropriations*, 79.

budget authority of approximately \$64.9 billion.⁷² The UASI program budget represents less than one percent of DHS's total budget authority.⁷³ These programs, however, play a critical role in the preparedness of state and local governments. According to the CRS:

State and local governments have primary responsibility for most domestic public safety functions. When facing difficult fiscal conditions, state and local governments may reduce resources allocated to public safety and, consequently, homeland security preparedness, due to increasing pressure to address tight budgetary constraints and fund competing priorities. Since state and local governments fund the largest percentage of public safety expenditures, this may have a significant impact on the national preparedness level.⁷⁴

DHS grant funding is only a little more than one percent of annual state and local public safety expenditures of \$218 billion.⁷⁵

Figure 1. DHS FY 2016 Percent of Budget Authority by Organization



Source: U.S. Department of Homeland Security, *Budget-in-Brief Fiscal Year 2016* (Washington, DC: U.S. Department of Homeland Security, 2015), 9, http://www.dhs.gov/sites/default/files/publications/FY_2016_DHS_Budget_in_Brief.pdf.

⁷² U.S. Department of Homeland Security, *Budget-in-Brief Fiscal Year 2016* (Washington, DC: U.S. Department of Homeland Security, 2015), 9, http://www.dhs.gov/sites/default/files/publications/FY_2016_DHS_Budget_in_Brief.pdf.

⁷³ Ibid.

⁷⁴ Painter, *Department of Homeland Security: FY2014 Appropriations*, 59.

⁷⁵ Ibid.

A. APPROPRIATION PROCESS

DHS's grant assistance programs are funded through one of 12 appropriations measures.⁷⁶ According to the CRS, "The House and Senate Committees on Appropriations have jurisdiction over the annual appropriations measures. Each committee has 12 subcommittees, and each subcommittee has jurisdiction over one regular annual appropriations bill that provides funding for departments and agencies under the subcommittees jurisdiction."⁷⁷ Consequently, a Senate and House subcommittee has jurisdiction over discretionary homeland security appropriations.

The end result of this process is the annual DHS Appropriations Act, which is signed into law by the President. The bill establishes the total amount the state and local preparedness grant programs are funded. Funding for the State Homeland Security and UASI grant programs is allocated by two different methods. In addition to risk and need considerations, the State Homeland Security grant program guarantees a minimum allocation to all states, the District of Columbia, and Puerto Rico.⁷⁸ This guarantee results in higher per capita grant allocations for more sparsely populated states.⁷⁹ The UASI program allocation, on the other hand, is based on DHS risk analysis, which determines the urban areas that qualify for grant funding through relative risk comparisons.⁸⁰

B. HOMELAND SECURITY GRANT CHARACTERISTICS

The process established by Congress and the DHS Secretary to allocate grant funding determines which urban areas are eligible for grant awards. By influencing the formula used to allocate funds, subcommittee members can affect the outcome through setting the rules as part of the governing body. How effectively stakeholders influence the process through their positions on committees or in leadership authority can help to

⁷⁶ Tollestrup, *The Congressional Appropriations Process: An Introduction*, 1.

⁷⁷ Tollestrup, *The Congressional Appropriations Process: An Introduction*, 1.

⁷⁸ Reese, *Department of Homeland Security Assistance to States and Localities: A Summary and Issues for the 111th Congress*, 5.

⁷⁹ Goerdel, "Politics versus Risk in Allocations of Federal Security Grants," 605.

⁸⁰ Reese, *Department of Homeland Security Assistance to States and Localities: A Summary and Issues for the 111th Congress*, 5.

determine how well they do with funding.⁸¹ According to University of Kansas Associate Professor Holly T. Goerdel:

The authorization committees for homeland security are substantively oriented towards issues of policy, as well as managing the authorization of funding for policy initiatives and programs. These committees can recommend policies that shape homeland security activities. Homeland security appropriations subcommittees also have authority to affect the success of policies and programs by writing appropriation checks on the basis of any concerns under their consideration. Therefore, changes to funding formulas can come about from integrated processes between authorization and appropriation committees.⁸²

Table 1 provides a comparison of homeland security grant characteristics. Depending on the type of grant allocation, each particular method is subject to influence.

Table 1. Distributive Politics and Homeland Security Grant Allocations, 2004–6

| Homeland Security Grant Characteristics | | |
|--|---|--|
| | Particularistic | Universal |
| Legislative Benefits | Narrow, exclusive, particularistic Example: policies that result from logrolling issues of interest to fewer legislators, such as those based on risk, vulnerability, past incidence | Universal, inclusive, wide ranging Example: revenue sharing policies based on equal distribution among fifty states (fair sharing); per capita distribution |
| Motivations to Secure Benefits | Motivated by securing potentially larger piece of fiscal share, even if otherwise trading off fair-share resources | Prevent losing funds to game of narrow political interests; prefer strategy of allocation similar to insurance policy |

Politics versus Risk in Allocations of Federal Security Grants (partial table). Source: Holly T. Goerdel, "Politics versus Risk in Allocations of Federal Security Grants," *Publius: The Journal of Federalism* 43, no. 4 (2012): 606, <http://publius.oxfordjournals.org/content/early/2012/12/22/publius.pjs053.abstract>.

⁸¹ Goerdel, "Politics versus Risk in Allocations of Federal Security Grants," 605.

⁸² Goerdel, "Politics versus Risk in Allocations of Federal Security Grants," 607.

The UASI program is a risk-based particularistic grant as opposed to the partially risk-based State Homeland Security grant program, which includes a revenue-sharing component. In comparing particularistic to universal security spending, political factors are more likely to dominate formula-based revenue sharing than risk-based allocations.⁸³ Based on Goerdel's analysis of risk and politics of homeland security grants for the period of 2004 to 2006, "political will to protect more certain, universal benefits prevails over any risk factor, whether medium or high."⁸⁴ Consequently, without a proven system of risk assessment in place to offset this influence, modifications to funding formulas may result in misallocation.⁸⁵

C. URBAN AREAS ELIGIBLE FOR GRANTS

As the grant allocation characteristics have changed through revisions by DHS and Congress, the total number of urban areas eligible to receive funding has varied by fiscal year. For example, in FY 2013, the total number of urban areas eligible to receive funding was limited to 25 through the congressional appropriations bill.⁸⁶ This restriction reduced the DHS Secretary's discretion to allocate funds.⁸⁷ However, this cap was then removed from the annual appropriations bill in FY 2014, and the number of UASIs funded increased to 39 by the DHS Secretary.⁸⁸ The FY 2015 UASI grant funded 28 urban areas.⁸⁹

⁸³ Ibid., 601.

⁸⁴ Ibid., 612.

⁸⁵ Goerdel, "Politics versus Risk in Allocations of Federal Security Grants," 619.

⁸⁶ DHS Press Office, "DHS Announces Grant Guidance for Fiscal Year (FY) 2013 Preparedness Grants," May 21, 2013, accessed at: <https://www.dhs.gov/news/2013/05/21/dhs-announces-grant-guidance-fiscal-year-fy-2013-preparedness-grants>.

⁸⁷ U.S. Department of Homeland Security, *Fiscal Year (FY) 2014 Homeland Security Grant Program (HSGP) Frequently Asked Questions (FAQs)* (Washington, DC: U.S. Department of Homeland Security, 2014), 3, http://www.fema.gov/media-library-data/1395150571234-0b433243a3e4c6cd0a5346e807a591c0/FY_2014_HSGP_FAQsFinal.pdf.

⁸⁸ Ibid.

⁸⁹ Department of Homeland Security, *Funding Opportunity Announcement (FOA) FY 2014 Homeland Security Grant Program (HSGP) Fiscal Year 2015 Homeland Security Grant Program, Appendix A–FY 2015 Program Allocations*, 31.

Within the 2015 DHS Appropriations Act, specific guidance was included for the UASI grant allocation process. This guidance defines the scope of the award grant award recipients as follows:

Consistent with the 9/11 Act, FEMA shall conduct risk assessments for the 100 most populous metropolitan areas prior to making Urban Area Security Initiative (UASI) grant awards. Because most of the cumulative national terrorism risk to urban areas is focused on a relatively small number of cities, it is expected that UASI funding will be limited to urban areas representing up to 85 percent of risk and that resources will continue to be allocated in proportion to risk.⁹⁰

Based on this guidance, DHS determines which urban areas qualify for grant funds within the 85 percent of risk criteria. Once the UASI grant budget is enacted, the process of allocating grant awards to specific urban areas is completed through the DHS risk formula, which provides a comparison ranking of the nation's metropolitan areas.

As the number of funded urban areas has fluctuated, so has their ability to sustain their regions' homeland security programs due to financial and budget uncertainties. This issue is exemplified through the congressional testimony of David Riggs, Indianapolis Director of Public Safety:

When the city [Indianapolis] lost UASI funding in 2011 and in 2013 ... we were left without the financial means to support operations. The loss of funding created a financial burden on a city that was already experiencing budget shortfalls due to a dwindling tax base and a struggling economy. Locally, we just could not sustain our operations and had to make some tough decisions in order to keep the most critical operations active. We also had to make some tough decisions regarding how we staffed our homeland security department.⁹¹

This impact is typical of some other urban areas throughout the nation as the loss of funding and economic downturn has affected local government preparedness. This

⁹⁰ "Department of Homeland Security Appropriations Act, 2015," 54, <http://www.gpo.gov/fdsys/pkg/CREC-2015-01-13/html/CREC-2015-01-13-pt1-PgH272-5.htm>.

⁹¹ *Committee on Homeland Security House of Representatives. Stakeholder Assessments of the Administration's National Preparedness Grant Program Proposal, Hearing before the Subcommittee on Emergency Preparedness, Response, and Communications of the Committee on Homeland Security House of Representatives*, 36.

economic impact is described further in *The 2014 Quadrennial Homeland Security Review*:

Since the last Quadrennial Homeland Security Review, economic conditions have had wide-ranging impacts across homeland security partners and stakeholders, affecting both daily operations and current investments to meet longer-term needs and challenges. For example, more than two-thirds of the nation's 30 largest metro regions have not seen municipal government revenue return to pre-recession levels.⁹²

The loss of program funding has affected various local government preparedness programs, including regional stakeholder partnerships. The grant funding provides an opportunity for stakeholders to work together to address homeland security issues.

Maintaining and establishing collaboration is a key component of the UASI grant assistance program. For example, according to Erica Chenoweth and Susan E. Clarke, "Even though local officials share concerns for security and well-being, the constraints on mobilizing and sustaining enough cooperation to act on homeland security needs are significant."⁹³ Funding and then defunding urban areas changes the dynamics within an urban area and also its ability to engage in future partnerships. For example, the UASI program grant requirements mandate the sustainment of an urban area working group to provide policy oversight for regional partnerships.⁹⁴ According to Erica Chenoweth and Clarke, "Since no single actor enjoys sufficient authority or resources to compel action, local politics must construct coalitions using a combination of incentives, mandates and regulations."⁹⁵ Consequently, the uncertainty of funding affects political support among partners at the local government level. According to Edmund C. Stazyk and Holly T. Goerdel:

⁹² Department of Homeland Security, *2014 Quadrennial Report* (Washington, DC: Department of Homeland Security, 2014), 26, <http://www.dhs.gov/sites/default/files/publications/2014-qhsr-final-508.pdf>.

⁹³ Chenoweth and Clarke, "All Terrorism is Local: Resources, Nested Institutions, and Governance for Urban Homeland Security in the American Federal System," 496.

⁹⁴ U.S. Department of Homeland Security, *Notice of Funding Opportunity: Fiscal Year 2015 Homeland Security Grant Program*, 44.

⁹⁵ Chenoweth and Clarke, "All Terrorism is Local: Resources, Nested Institutions, and Governance for Urban Homeland Security in the American Federal System," 498.

Political support is extremely valuable to public organizations. Political support functions as a resource ... to the extent that a dominant coalition of politicians can influence and determine an organization's goals and actions.⁹⁶

Maintaining multiagency support within an urban area for homeland security programs is critical to its effectiveness. Political support from within the coalition of local governments that represent the urban area can help leverage limited UASI funding. Since the UASI program mandates collaboration among local government agencies, the funding sustains regional preparedness planning.⁹⁷ The reliability of the process for determining federal assistance to urban areas is essential for homeland security preparedness.

D. BLOCK GRANTS

The State Homeland Security and UASI grants to state and local governments are considered block grants, which is a funding mechanism Congress uses to assist state and local governments to address broad public purposes.⁹⁸ According to the CRS, the following criteria are used in determining block grants:

- Program funds are typically distributed using a formula that may be prescribed in legislation or regulations; and,
- Unlike categorical programs, which target funds for a specific activity, recipients undertake at their discretion, a number of activities within a broad functional category aimed at addressing national objectives.⁹⁹

According to a 2014 CRS report, the use of block grants to fund programs provides considerable flexibility to the grantees, but this flexibility can make determining performance accountability difficult,¹⁰⁰ which has resulted in the extensive amount of regulation, audits, and concern over how the funding is spent. This issue was addressed

⁹⁶ Edmund C. Stazyk and Holly T. Goerdel, "The Benefits of Bureaucracy: Public Support, Goal Ambiguity, and Organizational Effectiveness," *Oxford Journals, Journal of Public Administration Research and Theory* 21, no 4. (2010): 650, <http://jpart.oxfordjournals.org/content/21/4/645.short>.

⁹⁷ FEMA, *Funding Opportunity Announcement (FOA): FY 2014 Homeland Security Grant Program (HSGP)*, Appendix B—FY 2014 HSGP Priorities, 44.

⁹⁸ Dilger and Boyd, *Block Grants: Perspectives and Controversies*, 1.

⁹⁹ *Ibid.*, 4.

¹⁰⁰ *Ibid.*, 11.

during congressional testimony over the grant management process in 2012, before the Committee on Homeland Security and Governmental Affairs Subcommittee.¹⁰¹ Some of the FEMA recommendations for improving the grant management process included realigning the organization, shortening the budget review process, permitting grant reprioritization, and reducing administrative hurdles.¹⁰² The issue of reducing administrative burden in the grant management process is a concern from local government representatives. For example, according to congressional testimony in April 2014, regarding the current grant structure, “it would be more efficient to award directly to the High-Risk Areas. This would eliminate a level of bureaucracy and would get funding to the local jurisdictions faster.”¹⁰³ In addition, although grant eligibility is based on the local urban area’s relative risk rating, state administrators, per the grant guidance, are authorized to use up to 20 percent of the grant award.¹⁰⁴

E. SUMMARY

The federal grant allocation process has significant implications for state and local homeland security preparedness. Given the differences between particularistic and universal grant allocation approaches, the UASI program “appears to more rationally steer grant resources to those at risk.”¹⁰⁵ As Congress has shifted to more risk-based grant criteria, this approach seems to be less subject to political influence among appropriation committees and aligns funding better than mandated minimum funding

¹⁰¹ *Federal Emergency Management Agency U.S. Department of Homeland Security before the Committee on Homeland Security and Governmental Affairs Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security United States Senate* (2012) (Statement of Elizabeth M. Harman Assistant Administrator Grant Programs Directorate), 2, http://www.fema.gov/media-library-data/1411484284286-e8fb5fa4daa75683bc75adc9fb01fd9d/7_25_12__assessing_grants_management_practices_at_federal_agencies.pdf.

¹⁰² *Ibid.*, 3–5.

¹⁰³ *Committee on Homeland Security House of Representatives. Stakeholder Assessments of the Administration’s National Preparedness Grant Program Proposal, Hearing before the Subcommittee on Emergency Preparedness, Response, and Communications of the Committee on Homeland Security House of Representatives*, 37.

¹⁰⁴ U.S. Department of Homeland Security, *Notice of Funding Opportunity: Fiscal Year 2015 Homeland Security Grant Program*, 21.

¹⁰⁵ Goerdel, “Politics versus Risk in Allocations of Federal Security Grants,” 614.

levels for all states.¹⁰⁶ However, the key aspect of using a risk-based approach is how the risk allocation formula is developed and applied since “making grant allocations based on risk are only as good as the formula and measurement of risk itself.”¹⁰⁷ Consequently, what comprises 85 percent of risk and how the grant allocation formula is developed and applied affects the funding available to the most populous metropolitan areas. Therefore, what is critical in allocating federal resources is ensuring risk is properly aligned with funding and the allocation process is validated and transparent. The UASI risk formula factors and grant allocation approaches are explored further in the next chapter.

¹⁰⁶ Ibid., 618.

¹⁰⁷ Ibid., 605.

IV. FEDERAL ASSISTANCE GRANT ALLOCATION METHODOLOGY

After September 11, 2001, federal homeland security assistance expanded with the *Homeland Security Act of 2002* (Pub. L. No. 107-296), which established DHS.¹⁰⁸ This act, amended in 2007 by Pub L. No. 110-53 to implement recommendations of the 9/11 Commission, authorized a number of DHS grants and mandated that several of the grant program allocation methods be based on an analysis of risk.¹⁰⁹ The top funded homeland security grant program is the UASI, which allocates funding to the nation's largest metropolitan areas. From FYs 2003 to 2010, for example, the UASI program was the second highest funded grant program and accounted for \$6.5 billion, approximately 19 percent, of the funding allocated for homeland security grants.¹¹⁰ This chapter assesses and evaluates the process by which DHS allocates UASI grant funds.

In FY 2014, DHS allocated \$587 million for UASI homeland security grant programs.¹¹¹ According to United States (U.S.) Code, the purpose of this grant funding is “to assist high-risk urban areas in preventing, preparing for, protecting against, and responding to acts of terrorism.”¹¹² The 100 most populous MSAs in the United States are eligible for UASI grants.¹¹³ MSAs are contiguous geographic regions of the United States defined by the federal Office of Management and Budget (OMB) as “a large population concentration that is integrated with surrounding territory.”¹¹⁴ According to

¹⁰⁸ Reese, *Department of Homeland Security Assistance to States and Localities: A Summary and Issues for the 111th Congress*, 3.

¹⁰⁹ Reese and Maguire, *Distribution of Homeland Security Grants in FY2007 and P.L. 110-53, Implementing Recommendations of the 9/11 Act*, CRS-6.

¹¹⁰ Reese, *Department of Homeland Security Assistance to States and Localities: A Summary and Issues for the 111th Congress*, 21.

¹¹¹ FEMA, *Funding Opportunity Announcement (FOA): FY 2014 Homeland Security Grant Program (HSGP)*, Appendix A—FY 2014 HSGP Allocations, 28.

¹¹² United States Code Subchapter XV-Homeland Security Grants, Section 604: Urban Area Security Initiative, 180.

¹¹³ *Ibid.*, Section 601: Definitions, 179.

¹¹⁴ Williams and Riehl, *Metropolitan Area Designations by OMB: History, Current Definitions, and Uses*, CRS-2.

the OMB, MSAs “represent areas in which people reside, work and spend their lives.”¹¹⁵ MSAs represent regions of the country geographically and economically connected. Each fiscal year, the grant administrator allocates UASI grant funding based on an analysis of the relative risk of the eligible urban areas.¹¹⁶ Working in conjunction with DHS, the grant administrator FEMA conducts an assessment of each of the eligible urban areas using the factors described in sections A through H and K:¹¹⁷

- (A) its population, including appropriate consideration of military, tourist and commuter populations;
- (B) its population density;
- (C) its history of threats, including whether it has been the target of a prior act of terrorism;
- (D) its degree of threat, vulnerability, and consequences related to critical infrastructure (for all critical infrastructure sectors) or key resources identified by the Administrator or the State homeland security plan, including threats, vulnerabilities, and consequences related to critical infrastructure or key resources in nearby jurisdictions;
- (E) the most current threat assessments available to the Department;
- (F) whether the State has, or the high-risk urban area is located at or near, an international border;
- (G) whether it has a coastline bordering an ocean (including the Gulf of Mexico) or international waters;
- (H) its likely need to respond to acts of terrorism occurring in nearby jurisdictions;
- (I) such other factors as are specified in writing by the Administrator.¹¹⁸

The initial assessment of each MSA is based on relative threat, vulnerability, and consequences from acts of terrorism.¹¹⁹ In accordance with U.S. Code, DHS uses a risk methodology based on the principal elements:

¹¹⁵ Williams and Riehl, *Metropolitan Area Designations by OMB: History, Current Definitions, and Uses*, CRS–2.

¹¹⁶ United States Code Subchapter XV-Homeland Security Grants, Section 604: Urban Area Security Initiative, 180.

¹¹⁷ Ibid.

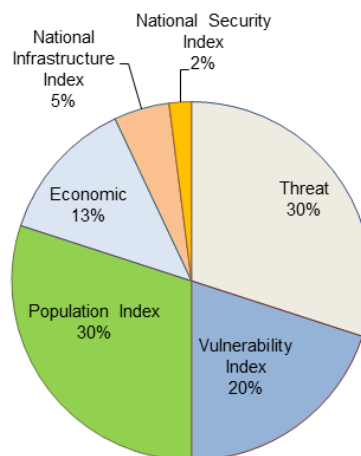
¹¹⁸ Ibid., Section 608, Prioritization, 185.

¹¹⁹ United States Code Subchapter XV-Homeland Security Grants, Section 608, Prioritization, 180.

- Threat—likelihood of an attack being attempted by an adversary
- Vulnerability—likelihood that an attack is successful, given that it is attempted
- Consequence—effect of an event, incident or occurrence¹²⁰
- Risk = Threat x Vulnerability x Consequence.¹²¹

Although Congress has “stipulated that risk is to be evaluated as a function of T, V, and C, ... FEMA is free to create the formula by which it estimates consequences and how it incorporates T, V, and C into an overall estimate of risk.”¹²² DHS allocates the funding based on ranking the MSA regions by using a variety of factors to assess risk further within those geographic locations. These primary factors, as previously described, include threat, the vulnerability index and the consequence index. These factors are subdivided further as shown in Figure 2.

Figure 2. Grant Allocation Factors



Source: Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders* (Washington, DC: Department of Homeland Security, 2014), 13.

¹²⁰ FEMA, *Funding Opportunity Announcement (FOA): FY 2014 Homeland Security Grant Program (HSGP)*, 6.

¹²¹ Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders* (Washington, DC: Department of Homeland Security, 2014), 10.

¹²² National Research Council of the National Academies, *Review of the Department of Homeland Security's Approach to Risk Analysis*, 72.

As Figure 2 illustrates, the factors used to rank the MSA regions are weighted, so that certain components, such as threats, have greater value in determining a region's overall risk rating. Therefore, a region with higher threats will rank higher on the overall threat index. DHS provides the details of how each component of risk is weighted, but the data used in every calculation are not available. When comparing MSA populations, for example, this information is readily available and referenced by DHS from the United States Census Bureau.¹²³ The same is true for economic data and several other categories; however, specific data for threats and critical assets are not available. FEMA, per 9/11 Act recommendations, bases the risk formula on relative versus absolute risk.¹²⁴ The comparison of relative versus absolute risk is provided in Table 2.¹²⁵

Table 2. Relative Risk versus Absolute Risk

| Relative Risk | Absolute Risk |
|--|--|
| <ul style="list-style-type: none"> • Measure of risk that represents the ratio of risks when compared to each other • Cannot be used as a “stand-alone” risk value – it is meaningful only in comparison to other similarly constructed risk values • Simpler calculation of risk since it is not associated with a particular scenario so specifics of attack are not required | <ul style="list-style-type: none"> • Level of risk expressed with standard units of measurement [e.g., lives lost, dollars] that allows for independent interpretation without comparison to estimates of other risks • Allows for a “stand-alone” risk value • Generally associated with a particular scenario and requires a significant amount of data on attack method, target, and probability of attack |

The relative risk rating allows for the ranking of MSAs since each urban area's risk rating is evaluated against each of the other urban areas. Each component of the formula uses its own data source to calculate that MSA's ranking. For example, an urban

¹²³ National Research Council of the National Academies, *Review of the Department of Homeland Security's Approach to Risk Analysis*, 41.

¹²⁴ Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders*, 12.

¹²⁵ Ibid.

area may rank high in population but low in overall threat. The combination and weight of each factor results in the overall relative risk rating for that MSA, which determines funding allocations.

A. THREAT COMPONENT

At 30 percent of the overall weighted score, the threat component is one of the largest single factors used in the DHS's calculation for MSA ranking. This component, according to FEMA, considers credible threats to the homeland, as well as threats from violent international and domestic terrorism actors.¹²⁶ The source of the threat information is from DHS, the Office of Intelligence and Analysis, with input from the Federal Bureau of Investigation (FBI).¹²⁷ Based on a GAO report, threat in the grant allocation methodology comprises urban areas most likely to be targets of attack.¹²⁸ This process is based on the following:

- Collecting qualitative threat information having a nexus with international terrorism or its affiliates
- Analyzing the threat information to create threat assessments for states and urban areas
- Empanelling intelligence experts to review the threat assessments and reach consensus as to the number of threat tiers and the placement of urban areas within threat tiers
- Assigning threat scores to states and each urban area based on their threat tier placement
- Considering threat information in four categories: detainee reporting, ongoing plot lines, credible reporting, and relevant investigation
- Using analytical judgment and discussion to reach consensus as to the number of threat tiers and the placement of urban areas within threat tiers¹²⁹

¹²⁶ Ibid., 14–15.

¹²⁷ Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders*, 15.

¹²⁸ U.S. Government Accountability Office, *Homeland Security: DHS Risk-Based Grant Methodology is Reasonable, but Current Version's of Vulnerability Is Limited*, Appendix I, 37.

¹²⁹ Ibid., 37–38.

Previous CRS reports have “noted that DHS’ efforts to evaluate and analyze threats only consider federal government intelligence and investigative information. To date, state and local intelligence and investigative information are not systematically considered in DHS’s assessment of threats to a given locality.”¹³⁰ Without further transparency in the process, urban areas are unsure of what level of state and local intelligence information is included. Since funding is tied to threat information, ensuring all the data are included for each region is critical. According to the NRC, “To maximize transparency of DHS risk analyses for decision makers, DHS should aim to document its risk analyses as clearly as possible and distribute them with as few constraints as possible.”¹³¹ More transparency will help stakeholders and decision makers better understand regional threats and priorities.

Based on the previously described factors, DHS separates the eligible urban areas into four ranking tiers based on assessed level of threat.¹³² For example, if a specific urban area ranks in the top percentage of all the urban areas for risk, and if that urban area is included in the next tier, it is ranked with all the other tier two urban areas whether it is in the top or bottom quartile of that ranking. Therefore, if an urban area is in a specific ranking tier, for risk calculation purposes, it has the same threat level as all other urban areas within that tier. Consequently, this ranking process groups all threat risks into four tiers and does not delineate within those categories.

Refining the tier ranking system would help provide more clarity to stakeholders and decision makers regarding the level of threats in their urban areas. Since the relative threat rating is one of the primary components used to determine the MSA’s overall relative risk rating, slight differences in relative threat can have a significant impact on urban area funding allocations. Depending on how a particular region’s risk is calculated, funding levels will fluctuate, and some urban areas will be affected more than others.

¹³⁰ Masse, O’Neil, and Rollins, *The Department of Homeland Security’s Risk Assessment Methodology: Evolution, Issues, and Options for Congress*, CRS–8.

¹³¹ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 114.

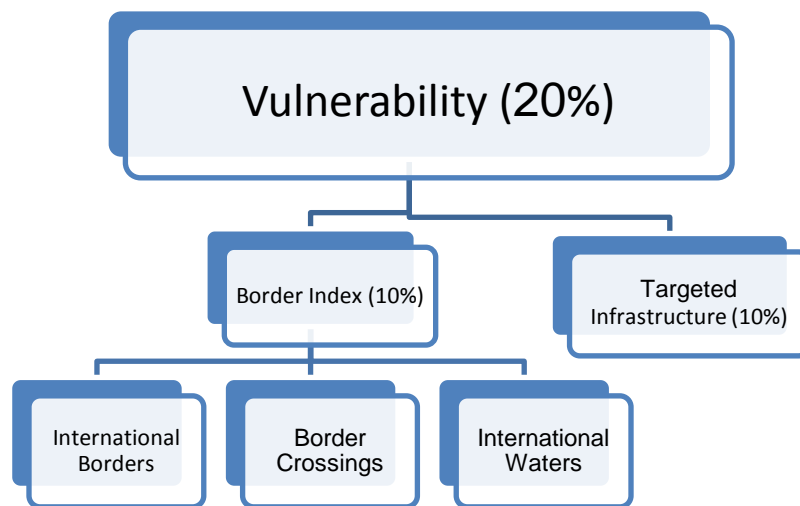
¹³² *The Department of Homeland Security’s Risk Assessment Methodology: Evolution, Issues, and Options for Congress*, CRS–8.

Consequently, broad tier comparisons may not accurately reflect the differences between regional threat levels.

B. VULNERABILITY INDEX

The vulnerability index comprises two equally weighted factors, the targeted infrastructure index and the border index. These factors are further detailed in Figure 3.¹³³

Figure 3. Vulnerability Component



The targeted infrastructure index is a subset of the DHS Office of Infrastructure Protection (IP) Level 1 and Level 2 count and represent the number of Level 1 and Level 2 assets and systems within sectors that DHS deems terrorists are more likely to attack.¹³⁴ These sectors include aviation, mass transit, oil and natural gas facilities, and large public facilities and venues.¹³⁵ The targeted infrastructure index also includes Level 1 and Level 2 assets that, regardless of sector, have been subject to specific and credible

¹³³ Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders*, 17.

¹³⁴ Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders*, 18.

¹³⁵ Ibid.

threats.¹³⁶ The border index includes three data elements: international borders, border crossing, and international waters. This index is primarily based on geographic location and the number of passenger crossings into the United States.¹³⁷

As explained by FEMA, in addition to other components, the targeted infrastructure represents assets and systems that DHS deems more subject to attack, such as pipelines and tankers.¹³⁸ However, similar to the previous discussion on threat, since the specific information on how the index is calculated is not available, the transparency for stakeholders and decision makers is limited. What is critical, however, is how to incorporate rapidly changing threat and vulnerability into the ranking process. For example, with the increase in Bakken oil transportation, this level of combustible fuel travelling through some already designated high-risk urban areas will increase, and the vulnerability index should reflect the increase in threat and the nexus to rail traffic.

According to Environment and Energy Publishing, “DHS has not followed many of the rail provisions laid out in the Implementing Recommendations of 9/11 Act of 2007, leading some security experts to question the agency’s ‘risk-based approach’ to rail safety that relies heavily on industry cooperation.”¹³⁹ Consequently, “the rapid rise of the ‘unit’ oil train has also exposed gaps in the agency’s approach to securing surface transportation.”¹⁴⁰ Not all urban areas are equally affected by this issue, and the ranking process must be transparent enough so stakeholders and policy makers can understand the impact on their region and their MSA ranking, which affects their funding allocation when vulnerabilities change.

¹³⁶ Ibid., 19.

¹³⁷ Ibid., 20–21.

¹³⁸ Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders*, 41.

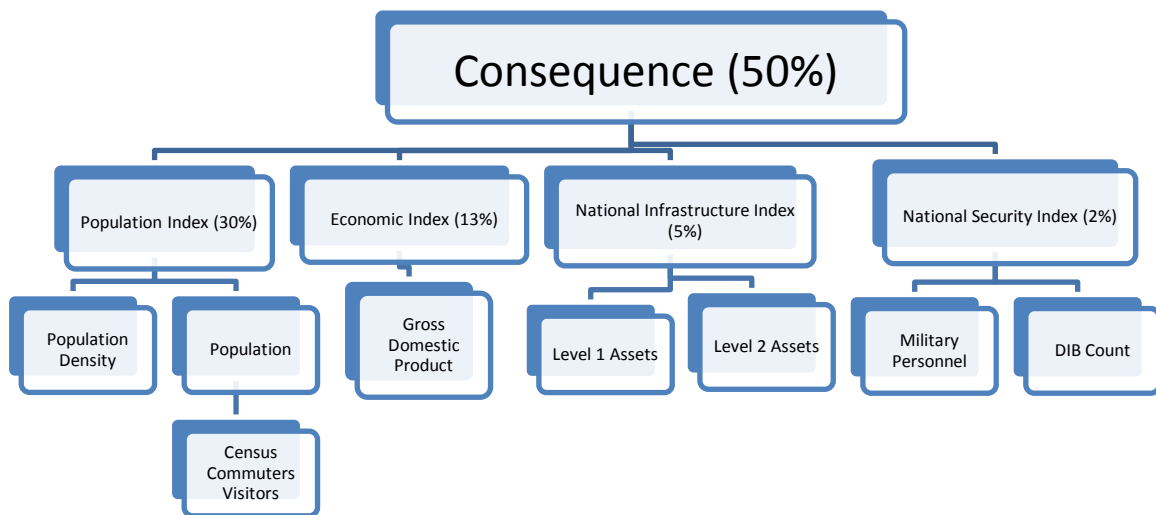
¹³⁹ Blake Sobczak, *Transport: As DOT Issues New Oil-by-Rail Rules, DHS Lags in its Security Plans* (Washington, DC: Environment and Energy Publishing, 2014), 1, <http://www.eenews.net/stories/1060003375>.

¹⁴⁰ Ibid.

C. CONSEQUENCE

Consequence comprises four factors: population index, economic index, national infrastructure index, and national security index. The scope of this section addresses the population, economic, and infrastructure indexes. Figure 4 is a chart of how the factors are weighted and their component factors.¹⁴¹

Figure 4. Consequence Index



Within the MSA ranking process, population is used in several calculations as a measure of population density and total population. Both of these factors are mandated in the U.S. Code.¹⁴² As shown in Figure 4, additional factors used include commuter and tourist information. The population index accounts for 30 percent of the overall consequence score and is considered the dominant factor.¹⁴³ The second largest factor for consequence is the economic index, which represents 13 percent of the weighting factor. Per FEMA, “Economic Index is proportional to the amount of economic disruption that

¹⁴¹ Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders*, 23.

¹⁴² United States Code Subchapter XV-Homeland Security Grants, Section 604: Urban Area Security Initiative, 180.

¹⁴³ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 72.

could be caused by a generalized attack on an area.”¹⁴⁴ The gross domestic product (GDP) is considered a proxy for this measure.¹⁴⁵

The issue regarding the consequence index, as well as the other factors, is what is the more critical indicator of risk? Also, how should these factors be weighted? For example, how is an economic index of 13 percent relevant for ranking a region? If certain urban areas are allocated more grant funding because of their GDP ranking, how does the economic index compare with unique geographic vulnerabilities and high-risk assets? The issue of weighting factors was addressed by the NRC, “It appears that the choice of weightings in these risk assessments, and the parameters in the consequence formulas, are chosen in an ad hoc fashion and have not been peer reviewed by technical experts external to DHS.”¹⁴⁶ Depending on how these weightings are applied, the process will impact funding allocations since each urban area ranks differently in each of the various weighted categories.

The national infrastructure index represents five percent of the consequence weighting, and accounts for potentially the highest consequence events.¹⁴⁷ Per FEMA, the national infrastructure index was developed from the DHS IP Office and represents the count of Level 1 and Level 2 assets and systems within the MSA.¹⁴⁸ According to the GAO, Critical infrastructure assets within the MSAs are divided into two levels, “that if destroyed or disrupted, could cause significant casualties, major economic losses, or widespread and long-term disruptions to national well-being and governance capacity.”¹⁴⁹ The tiered approach was developed in 2006 through the DHS National

¹⁴⁴ Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders*, 27.

¹⁴⁵ Ibid.

¹⁴⁶ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 72.

¹⁴⁷ U.S. Government Accountability Office, *Critical Infrastructure Protection: DHS List of Priority Assets Needs to Be Validated and Reported to Congress* (GAO-13-296) (Washington, DC: U.S. Government Accountability Office, 2013), 14, <http://www.gao.gov/products/GAO-13-296>.

¹⁴⁸ Department of Homeland Security, *State and Metropolitan Statistical Area Risk Informed Allocation Approach: A Guide for FEMA/GPD Stakeholders*, 40.

¹⁴⁹ U.S. Government Accountability Office, *Homeland Security: DHS Risk-Based Grant Methodology is Reasonable, but Current Version’s of Vulnerability Is Limited*, Appendix I, 42.

Critical Infrastructure Prioritization Program “to identify nationally significant critical infrastructure each year based on the consequences associated with the disruption or destruction of those critical infrastructure.”¹⁵⁰ The process to evaluate assets and systems for inclusion as tier 1 or 2 is through the framework provided by the DHS National Infrastructure Protection Plan (NIPP). NIPP “provides the overarching approach for integrating the nation’s critical infrastructure protection and resiliency activities into a single national effort.”¹⁵¹ The list of tier 1 and tier 2 assets “identifies nationally significant critical infrastructure that DHS can use to enhance decision making, including implementing ... [FEMA’s] homeland security grant programs.”¹⁵²

Given the five percent weighting assigned to the national infrastructure index, although these are the highest consequence assets and systems evaluated by the IP Office, a region with a high rating in this category, could still receive an overall lower relative MSA ranking, based on the weighting score of the other factors. In addition, “DHS does not have a process for identifying the impact of changes to the list on its users and has not reviewed the impact of these changes on users.”¹⁵³ According to the GAO, “DHS has not validated its approach to developing the list to ensure that it adequately reflects the nation’s highest-priority critical infrastructure.”¹⁵⁴ The GAO has shown, “Even small changes to the NCIPP list counts can have an impact on UASI grant allocations when accounting for all the additional inputs considered in FEMA’s risk formula.”¹⁵⁵

Considering the critical impact of this process on FEMA funding decisions, “An independent peer review to validate the NCIPP criteria and list development process would better position DHS to reasonably assure that, consistent with the NIPP risk management framework, federal and state partners that use the NCIPP list have sound

¹⁵⁰ U.S. Government Accountability Office, *Critical Infrastructure Protection: DHS List of Priority Assets Needs to Be Validated and Reported to Congress*, 4.

¹⁵¹ U.S. Government Accountability Office, *Critical Infrastructure Protection: DHS List of Priority Assets Needs to Be Validated and Reported to Congress*, 2.

¹⁵² *Ibid.*, 4–5.

¹⁵³ *Ibid.*, 23.

¹⁵⁴ *Ibid.*, 24.

¹⁵⁵ *Ibid.*

information when making risk management and resource allocation decisions.”¹⁵⁶ Without further transparency in the process, urban areas will not have the information necessary to ensure grant funding allocations are appropriately applied to reduce their region’s overall risk.

D. VULNERABILITY ASSESSMENT

The 9/11 Commission Report recommends “homeland security assistance should be based strictly on an assessment of risks and vulnerabilities.”¹⁵⁷ Consequently, Congress has specified risk is to be determined by threats, vulnerability, and consequences.¹⁵⁸ Based on this formula, according to the GAO, “limitations such as the absence of a method for measuring variations in vulnerability reduce the vulnerability element’s value.”¹⁵⁹ In the risk management formula, FEMA “has set vulnerability equal to 1.0, effectively removing that factor from the risk equation.”¹⁶⁰ Consequently, the vulnerabilities as used in the risk model assume each geographic region of the country is as vulnerable as any other for terrorism.

According to the GAO, “Vulnerability is a crucial component of risk assessment ... DHS needs to measure vulnerability as part of its risk analysis model to capture variations in vulnerability across states and urban areas.”¹⁶¹ The issue becomes how to include vulnerability in the risk equation. According to the CRS, “A risk assessment process used to allocate homeland security assistance would determine that every state and locality has some risk, whether terrorism or natural disaster related, and needs some amount of funding. This, however, would require DHS to evaluate state and local

¹⁵⁶ *Ibid.*, 26.

¹⁵⁷ Kean and Hamilton, *National Commission on Terrorist Attacks upon the United States, The 9/11 Commission Report*, 396.

¹⁵⁸ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 72.

¹⁵⁹ U.S. Government Accountability Office, *Homeland Security: DHS Risk-Based Grant Methodology is Reasonable, But Current Version’s of Vulnerability is Limited*,” 20.

¹⁶⁰ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 72.

¹⁶¹ U.S. Government Accountability Office, *Homeland Security: DHS Risk-Based Grant Methodology is Reasonable, But Current Version’s of Vulnerability is Limited*, 25.

capabilities, vulnerability, and risk in a manner that accurately reflects the nations' current homeland security environment.”¹⁶² The issue is whether DHS, like other fiscally constrained government agencies, has the resources to conduct this comprehensive evaluation.¹⁶³ The next chapter provides a case study from the United Kingdom on the potential use of direct funding to support local homeland security preparedness in the United States.

¹⁶² Reese, *Department of Homeland Security Assistance to States and Localities: A Summary and Issues for the 111th Congress*, 23.

¹⁶³ National Research Council of the National Academies, *Review of the Department of Homeland Security's Approach to Risk Analysis*, 72.

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V. UNITED KINGDOM CASE STUDY

The United States uses a variety of federal grants to fund its homeland security programs. One of the largest federally funded grants is the UASI program, which provides funding to the nation's largest urban areas based on risk criteria specified by Congress. This program is administered by DHS and FEMA. DHS and FEMA determine the grant allocation formula to be applied based on the concept of relative risk. In 2015, based on this formula, 28 specific urban areas received homeland security funding.¹⁶⁴ This allocation approach narrows the availability of grant funding to specific urban areas regardless of need or national threat priorities affecting other MSAs. According to *The 9/11 Commission Report*, “every state and city needs to have some minimum infrastructure for emergency response.”¹⁶⁵ Consequently, urban areas that have risk but do not rank high enough to receive funding may not be able to initiate or sustain homeland security efforts.

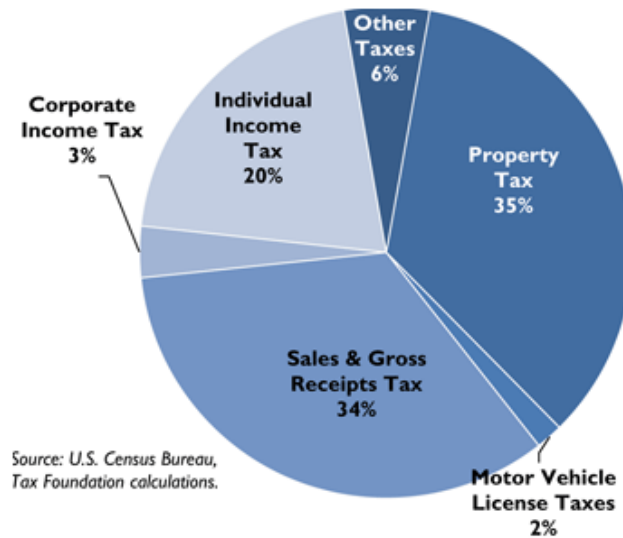
In the United States, funding for state and local governments comes primarily from sales, property, and income taxes (see Figure 5). As a result, the funding can fluctuate widely based on local and regional economic circumstances, which affects policing levels and support services. Without dedicated homeland security funding, urban areas may not continue to focus on homeland security priorities, especially when revenue sources are uncertain for existing programs. Funding from the UASI grant is allocated for urban areas deemed at highest risk, but the direct connection to national priorities or

¹⁶⁴ Department of Homeland Security, *Funding Opportunity Announcement (FOA) FY 2014 Homeland Security Grant Program (HSGP) Fiscal Year 2015 Homeland Security Grant Program, Appendix A—FY 2015 Program Allocations*, 31.

¹⁶⁵ The 9/11 Commission, *Final Report of the National Commission on Terrorist Attacks upon the United States* (New York: W.W. Norton & Company, 2004), 396.

strategies is unclear.¹⁶⁶ This ambiguity has resulted in the difficulty of determining how federal grant funding has reduced risk.¹⁶⁷

Figure 5. State and Local Government Revenue Sources in the United States



Source: Liz Malm and Ellen Kant, “The Sources of State and Local Tax Revenues,” Tax Foundation, January 28, 2013, 1, <http://taxfoundation.org/article/sources-state-and-local-tax-revenues>.

Using law enforcement as an example, if a direct funding mechanism was established for local police agencies, the federal government could designate policies conducive to addressing national priorities and threats. For example, by allocating funds based on the top national threats, such as self-radicalization, funding will align directly with risk. The current DHS funding process for concentrating risk within the top 28 urban areas does not directly align funding with prioritized threat because a variety of factors are included in the UASI grant allocation process. Threat is only one of the UASI grant allocation factors. Given the limited amount of homeland security funding available,

¹⁶⁶ *Is DHS Effectively Implementing A Strategy to Counter Emerging Threats?*” Written Statement before the Committee on Homeland Security’s Subcommittee on Oversight, Investigations & Management House of Representatives (2012) (written statement of Shawn Reese), 8, https://homeland.house.gov/files/Testimony%20Reese_0.pdf.

¹⁶⁷ Masse, O’Neil, and Rollins, *The Department of Homeland Security’s Risk Assessment Methodology: Evolution, Issues, and Options for Congress*, CRS–24.

aligning nationally prioritized threats with resources will enable police agencies to focus on the most critical and immediate problems.

The *2014 Quadrennial Report* issued by the Secretary of Homeland Security states that the nation's largest metro regions have still not recovered from the great recession.¹⁶⁸ Since the current UASI grant allocation approach does not consider need in its allocation formula, having a dedicated funding source would ensure resources are targeted on homeland security priorities and help improve the capabilities of local law enforcement.

A. UNITED KINGDOM APPROACH

The United Kingdom offers another approach for allocating grant funding.¹⁶⁹ The United Kingdom does not have an overarching homeland security agency. Instead, it has a variety of government departments that oversee security and counterterrorism issues.¹⁷⁰ These departments coordinate their activities through inter-departmental committees of ministers and other government officials.¹⁷¹ The UK's central-government approach directly allocates grants to fund police agencies and specific counterterrorism programs. Focusing specifically on police services, this comparison evaluates the U.S.' risk-based approach against the UK's grant methodology to fund police, intelligence, and counterterrorism activities.

The Home Office, or interior ministry, is the lead department for homeland security response, including counterterrorism policy,¹⁷² and has "ministerial responsibility for the police services in England and Wales."¹⁷³ The UK's central government approach to funding police agencies and specific counterterrorism programs

¹⁶⁸ Department of Homeland Security, *2014 Quadrennial Report*, 26.

¹⁶⁹ Archick et al., *European Approaches to Homeland Security and Counterterrorism*, CRS-36.

¹⁷⁰ Ibid.

¹⁷¹ Ibid.

¹⁷² Ibid., CRS-39.

¹⁷³ Ibid., CRS-40.

is through direct allocation of grants based primarily on four separate sources. These sources include:

- The Police Grant from the Home Office
- The Revenue Support Grant from the Department for Communities and Local Government (DCLG) and Welsh Assembly Government (WAG)
- Redistributed business rates from DCLG and WAG
- Specific grants from the Home Office¹⁷⁴

The UK funding allocation formula is based on calculations that use various types of data, such as population density, to share funding.¹⁷⁵ According to the *UK Guide to Police Allocation Formula* (PAF), “The PAF is used to divide the majority of the money available for total police funding between forces. The results of the PAF have a significant impact on how much money a force will receive in order to police its local area. The PAF allocates funding to forces based on their relative need.”¹⁷⁶ The PAF “is not a calculation of absolute needs, that is, it does not estimate how much each force needs independently of other forces.”¹⁷⁷ This formula helps to offset local revenue differences among agencies.

According to a CRS report, “Policing in the UK is largely decentralized. There are 43 regional police forces in England and Wales.”¹⁷⁸ Since the central government provides substantial funding for the national police force, the central government maintains considerable control through the Home Office Secretary.¹⁷⁹ The allocation “model is designed to ... provide a good statistical prediction of relative police workload across the country.”¹⁸⁰ Local police authorities, however, maintain operational control

¹⁷⁴ United Kingdom Home Office, “Crime and Policing: Guide to the Police Allocation Formula,” 1.

¹⁷⁵ Ibid.

¹⁷⁶ Ibid.

¹⁷⁷ Ibid.

¹⁷⁸ Archick et al., *European Approaches to Homeland Security and Counterterrorism*, CRS-40.

¹⁷⁹ “Police Funding Background,” accessed November 8, 2015, <http://www.politics.co.uk/reference/police-funding>,

¹⁸⁰ United Kingdom Home Office, Crime and Policing, “Guide to the Police Allocation Formula,” 2.

through directly elected police and crime commissioners.¹⁸¹ Although grant funding is allocated based on specific crime category statistics, each metropolitan area is free to spend the money based on its assessment of local priorities.¹⁸² In addition to grant allocation formulas, grant funding is specifically allocated to areas considered in the national police interest, such as counter terrorism. For example, out of the 2015/16 Home Office Police main grant of £4,309 million pounds, approximately 13 percent is allocated for counter terrorism.¹⁸³ The Minister of State for Policing, Criminal Justice and Victims can make the annual determination of which categories to allocate the funding.¹⁸⁴

B. POLICE FUNDING ANALYSIS

The UK's funding mechanism, although complex, allows the central government to target specific spending.¹⁸⁵ According to Timothy Brain, "Funding is provided by two government departments, Home Office and Department of Communities and Local Government (DCLG), ... and by individual police authorities (council tax)."¹⁸⁶ In addition, according to the briefing paper, besides general grants "there are a variety of specific grants, such as those for security and public finance initiative projects."¹⁸⁷ Figure 6 provides an example of the principal police funding sources by category.

¹⁸¹ United Kingdom Home Office, Crime and Policing, "Guide to the Police Allocation Formula," 2.

¹⁸² Ibid.

¹⁸³ *The Minister of State Policing, Criminal Justice and Victims, House of Commons: Written Statement (HCWS129)*, 2.

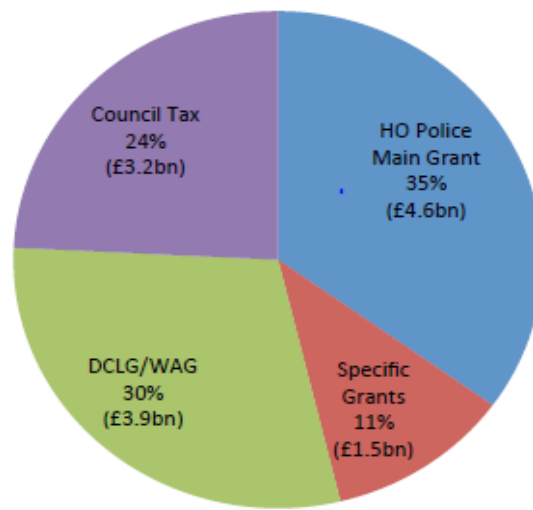
¹⁸⁴ Ibid., 1.

¹⁸⁵ Brain, *Police Funding (England & Wales) 2011–2012*, 2.

¹⁸⁶ Ibid.

¹⁸⁷ Ibid.

Figure 6. UK Principal Funding Sources 2011–2012



Source: Timothy Brain, “Police Funding (England & Wales) 2011–2012, Police Briefing Paper, No. 1, Universities’ Police Science Institute, August 2011, 2, <http://www.openeyecommunications.com/wp-content/uploads/2011/09/UPSI-Police-Briefing-Paper-No-1-12-Aug-11.pdf>.

The central government accounts for 76 percent of total police funding in the United Kingdom (Figure 6).¹⁸⁸ The remaining council tax share of 24 percent is paid through local government revenue. This percent has doubled since 1995.¹⁸⁹ The Home Office share provides the largest funding source based on a needs-based police funding formula.¹⁹⁰ Based on the limitations of available data, the UK’s allocation formula does not include every factor that affects relative policing need, so a Police Allocation Formula Working Group (PAWG) oversees the modifications to the process.¹⁹¹ According to *the UK Guide to Police Allocation*, the PAWG is an official group comprised of various central government and police authorities.¹⁹² The process, which includes public consultation, “ensures that the formula is scrutinized and can be discussed

¹⁸⁸ Brain, *Police Funding (England & Wales) 2011–2012*, 2.

¹⁸⁹ Ibid.

¹⁹⁰ Ibid.

¹⁹¹ United Kingdom Home Office, “Crime and Policing: Guide to the Police Allocation Formula,” 2.

¹⁹² United Kingdom Home Office, “Crime and Policing: Guide to the Police Allocation Formula,” 2.

by a wide range of stakeholders.”¹⁹³ Most of the specific grants, except for security targeted programs, are also distributed by formula; consequently, the Metropolitan Police Service (MPS) receives 63 percent of the security grant.¹⁹⁴ Within the specific grants category, counter terrorism comprises approximately 54 percent of the amount allocated.¹⁹⁵

The UK allocation formula is based on total police workload including crime types and police enforcement activities.¹⁹⁶ For example, more funding is allocated for investigating violent crime and policing special events. Although funding is based on these types of factors, police authorities are free to use it according to their specific assessment of local priorities.¹⁹⁷ For allocation of specific counter terrorism funding, however, the money is considered “ring-fenced” or restricted and can only be used for targeted activities.¹⁹⁸ For security reasons, the specific allocations, however, are not available in the public domain.¹⁹⁹

The UK parliamentary system helps influence government decisions regarding homeland security priorities.²⁰⁰ According to a CRS report:

The Prime Minister and his Cabinet are drawn from the political party with a majority in the House of Commons, the elected chamber of Parliament. As such, there is no strict separation of the executive and legislative branches of government in the UK. The Prime Minister, the Chancellor of the Exchequer, and the Cabinet ministers prepare the government’s budget and set overall departmental budget priorities and spending limits. Given that the UK government has a majority in

¹⁹³ Ibid.

¹⁹⁴ Brain, *Police Funding (England & Wales) 2011–2012*, 3.

¹⁹⁵ Ibid., 8.

¹⁹⁶ United Kingdom Home Office, “Crime and Policing: Guide to the Police Allocation Formula,” 3.

¹⁹⁷ Ibid.

¹⁹⁸ *The Minister of State Policing, Criminal Justice and Victims, House of Commons: Written Statement (HCWS129)*, 3.

¹⁹⁹ Ibid.

²⁰⁰ Archick et al., *European Approaches to Homeland Security and Counterterrorism*, CRS–41.

Parliament, the government's proposed budgetary levels are not usually contested in the same way as they often are in the United States.²⁰¹

Consequently, the direct allocation of funding and the central government's overall budget strategy helps local police agencies maintain greater program continuity.

The UK approach, in combination with intelligence-led policing policies, directly aligns funding with the greatest threats. For example, British Military Intelligence (MI5) works directly with the local government police agencies to administer terrorist-related cases. MI5, as case manager, helps local governments manage counterterrorism investigations and arrests.²⁰² Aligning the funding with national priorities helps address threats directly and having designated MI5 case managers ensures continuity within the metro police agencies.

C. APPLICABILITY FOR THE UNITED STATES

Would the UK system work in the United States given the large number and diversity of police agencies? In contrast to the UK's 43 metro police agencies, the United States has approximately 16,000 police agencies.²⁰³ Most of these agencies are comprised of small police forces of 10 employees or less and have diverse standards.²⁰⁴ To be feasible in the United States, a direct allocation approach could be adjusted to focus on the top 100 MSAs. A direct allocation formula, using criteria already established by public law could be used, with specific emphasis on national threats and priorities. By focusing on the 100 largest MSAs, which includes over 200 million U.S. residents, direct allocations would provide a specific level of resources dedicated to homeland security

²⁰¹ Archick et al., *European Approaches to Homeland Security and Counterterrorism*, CRS-41.

²⁰² Nadav Morag, *Comparative Homeland Security: Global Lessons* (Hoboken, NJ: Wiley & Sons, 2011), 133.

²⁰³ David Carter and Jeremy Carter, "Intelligence Led Policing: Conceptual and Functional Considerations for Public Policy," *Criminal Justice Policy Review*, 2009, 5, <https://scholarworks.iupui.edu/bitstream/handle/1805/3856/Carter-2009-Intelligence-Led-Policing.pdf?sequence=1>.

²⁰⁴ *Ibid.*

functions.²⁰⁵ Other criteria, such as crime statistics, could be included in the formula, so the program has a dual purpose similar to the UK approach.

By providing direct funding from the central government, financial variations in regional or local economies can be reduced. In addition, for counterterrorism funding, assigning funding directly to police agencies reduces the administrative burden of intermediary agencies and helps establish priorities for national needs. Through the direct funding mechanism to local police agencies, the federal government can designate policies conducive to addressing national priorities and threats. For example, by allocating funding based on the top national threats, such as self-radicalization, funding will be directly aligned with this risk.

However, using a direct federal government allocation method would leave local programs susceptible to budget cuts if federal programs changed. If the programs, however, are no longer a priority, then the cuts will reflect the ongoing risk and threat environment. Given the ongoing threat picture, the direct allocation of resources to local law enforcement will provide specific policies and help standardize best practices. In addition, a transparent formula-driven allocation process, based on national threat and regional need, will help reduce the political influence on grant allocations.

Since the U.S. grant allocation formula assumes vulnerability is the same throughout the nation, capability differences among MSAs to address vulnerabilities are not included in the grant formula.²⁰⁶ Vulnerable regions with fewer capabilities are not accounted for in the relative risk rating. By including factors for relative need, more consistency would result in national preparedness planning.

Previous competitive grant programs administered by the Department of Justice (DOJ) have shown how funding can directly impact local resources. For example, the Community Oriented Policing (COP) Hiring program provided direct funding for adding

²⁰⁵ United States Census Bureau, "Population Change for Metropolitan and Micropolitan Statistical Areas in the United States and Puerto Rico (February 2013 Delineations): 2000 to 2010, CPH-T-5," March 2013, <http://www.census.gov/population/www/cen2010/cph-t/cph-t-5.html>.

²⁰⁶ National Research Council of the National Academies, *Review of the Department of Homeland Security's Approach to Risk Analysis*, 72.

local police officers. The Cops-in-Schools program was another direct funding approach to place officers in local schools. The funding for these programs has been significantly reduced since their initial inception; however, the potential still exists. Both programs were competitive grants, however, and by using the UASI model, the Secretary of Homeland Security could designate funding levels for MSAs through a direct allocation grant formula that focuses on national priorities. Direct funding, for example, police positions within specific regions would help provide resources to leverage local law enforcement programs.

Since risk-based funding allocation amounts are made at the discretion of DHS, the focus of the funding could then be adjusted each year based on changes to potential threats.²⁰⁷ For example, the program could initially focus on conducting some level of community outreach throughout the United States. If a different threat becomes a higher priority, then the following year's program can be adjusted to reflect greater emphasis on other priorities. By having a dedicated funding mechanism baseline, each urban area could have some level of resources dedicated to homeland security threats. For example, if self-radicalization is at the highest threat priority, directly allocating resources to police agencies with the focus of addressing this problem would work on several levels, community policing and community engagement. This approach would be useful not only for addressing the threat of self-radicalization but also for enhancing community support and outreach. Creating a direct funding approach with specific national priorities will establish more clear policies for addressing local and regional threats. The focus of the program could change based on the recommendations of the DHS Secretary, thus providing more clearly defined connections with funding.

Another benefit is the potential expanded use of best practices. Various DOJ programs have historically helped increase community engagement through community policing grants. In addition, programs, such as value-based initiatives sponsored by the

²⁰⁷ FEMA, *Funding Opportunity Announcement (FOA): FY 2014 Homeland Security Grant Program (HSGP)*, 12.

DOJ, support partnerships between law enforcement and faith-based communities.²⁰⁸ This approach is consistent with the UK's philosophy of policing and community engagement, which is made possible by its funding support. The existing grant management structures at DHS, FEMA, and the DOJ could administer the programs. No additional government support units are necessary.

Based on an analysis of the United Kingdom, the specific policy recommendations for consideration in the United States are as follows:

- Develop grant assistance programs for local police agencies to address specific national priority programs, such as countering violent extremism.
- Assign the direct allocation of funding, thereby reducing financial intermediaries.
- Include needs-based assessments of MSAs in assistance allocation programs so local capabilities are consistent.
- Maintain program funding sustainability with changes to annual threat priorities.

Each metropolitan statistical area has some level of risk, and funding homeland security programs based on needs and priorities will ensure more MSAs focus on high priority homeland security threats.

D. CONCLUSION

The allocation of grant funding in the United Kingdom provides another option for distributing homeland security grants. Although the UK police allocation formula is complicated, certain aspects of the program are worth considering in the United States. By using a direct formula driven process, the funding is provided directly to police agencies instead of through federal grants administered by state agencies. This method of funding reduces the administrative burden on the grantee and streamlines the allocation process. In addition, the United Kingdom uses a formula allocation process based on relative need and work load between agencies, which ensures the more equitable distribution of funds for local governments with different levels of capabilities. Given the

²⁰⁸ Mary Beth Gordon, *Making the Match: Law Enforcement, the Faith Community and the Value-based Initiative* (Washington, DC: Office of Community Oriented Policing Services, 2003), ii.

variability of police resources, training, and capabilities among the nation's largest police agencies, a formula-driven approach for directly allocating homeland security grants has certain benefits. These benefits include program stability, training consistency, national threat prioritization, and best practices.

Having resources to establish and maintain homeland security programs will improve the capabilities of local law enforcement outreach and community engagement. Individual police agencies can then establish programs to coordinate resources within their communities targeting specific priorities. Moreover, the expansion of direct funding to MSAs will help address national priorities. Based on the final report of the President's Task Force On 21st Century Policing, the final recommendation: "Work with the U.S. Department of Homeland Security to ensure the community policing tactics in state, local, and tribal law enforcement agencies are incorporated into the role of homeland security."²⁰⁹ Consequently, direct funding for local law enforcement agencies is the first step to achieve this recommendation.

²⁰⁹ President's Task Force on 21st Century Policing, *Final Report of the President's Task Force on 21st Century Policing* (Washington, DC: Office of Community Oriented Policing Services, 2015), 99, http://www.cops.usdoj.gov/pdf/taskforce/taskforce_finalreport.pdf.

VI. RECOMMENDATIONS

Based on the Office of Homeland Security Risk Management Doctrine, the key principles listed for effective risk management include unity of effort, transparency, adaptability, practicality, and customization.²¹⁰ According to this doctrine:

Transparency is important for the analysis that contributes to decision making. It includes the assumptions that supported that analysis, the uncertainty involved with it, and the communications that follow that decision. Risk management should not be a ‘black box’ exercise where analysis is hidden.²¹¹

This analysis is especially critical for determining MSA ratings for UASI programs and should include the most recent local, state, and federal information to determine the threats, vulnerabilities and consequences accurately from a terrorist event. The DHS doctrine further states, “Those impacted by a risk management approach should be able to validate the integrity of the approach.”²¹² Determining the process used to weight FEMA’s risk-formula components ultimately impacts how the funding allocations are determined. Validating the factors used will help ensure the appropriate mix of variables is included when assessing the relative risk scores. Based on the funding methodologies covered in this thesis, a summary of the recommendations for DHS and FEMA is provided.

A. THREAT COMPONENT

Provide transparency in the risk management process regarding information input to ensure stakeholders and policy makers have a better perspective and understanding of the threats, thereby ensuring all the critical data is included for each MSA. By detailing “its risk analyses as clearly as possible and distributing them with as few constraints as possible,” as suggested by the NRC, DHS can ensure the threat index will provide a more

²¹⁰ Department of Homeland Security, *Risk Management Fundamentals: Homeland Security Risk Management Doctrine* (Washington, DC: Department of Homeland Security, 2011), 11, <https://www.dhs.gov/xlibrary/assets/rma-risk-management-fundamentals.pdf>.

²¹¹ *Ibid.*, 11–12.

²¹² *Ibid.*, 12.

thorough process for resource allocation.²¹³ DHS should consider providing a summary report or brief outlining in general terms the types of threat information considered in ranking each of the urban areas, so each region has a better understanding of what factors DHS considers the highest priorities. These reports will assist each urban area, especially the lesser funded regions with fewer available resources, with aligning resources with general threat information and will be useful for completing threat and hazard identification and risk assessments.

Categorize the threat information into more defined categories so individual differences among urban areas are more specifically provided on a scalable range, which will help provide more clarity to stakeholders and decision makers and provide a more specific measure of relative threat. Even slight differences in relative risk levels can affect funding allocations. By using a scalable methodology versus four tiers, the relative threat measure will be more accurately reflected in the risk formula and grant allocations, since the threat component is the largest weighted factor used in determining the MSAs' overall relative risk rating.

B. VULNERABILITY INDEX

Incorporate more transparency and flexibility in the process to provide urban areas with a better understanding of what targeted infrastructure sectors are included and to ensure specific information on rapidly changing threat and vulnerability levels is incorporated into the ranking process. This transparency and analyses will help stakeholders and policy makers better understand the impact to their region and their MSA ranking.

C. CONSEQUENCE INDEX

Provide validation of the weighting factors used in the risk assessment and consequence formulas. The U.S. Code outlines the factors that must be used for prioritizing funding, but no specific guidance is provided on the weight given to each component. An independent validation of the selection of formula weightings and

²¹³ National Research Council of the National Academies, *Review of the Department of Homeland Security's Approach to Risk Analysis*, 7.

allocation parameters by technical experts would substantiate the process.²¹⁴ This validation would also provide more transparency to the process by documenting how it was derived.

D. NATIONAL INFRASTRUCTURE INDEX

Include an evaluation process to validate this component. The critical consequence of the assets and systems included in the index should be validated and reviewed, considering how even small changes in the asset list can have an impact on UASI allocations. In addition, validating the process for developing the critical infrastructure list is critical to ensure it adequately reflects the nation's most critical assets, so stakeholders and decision makers "have sound information when making risk management and resource allocation decisions."²¹⁵ Through an independent peer review, as recommended by the GAO, DHS would be in a better position to assure the nation's highest-priority assets have been included.²¹⁶ Per U.S. Code, this index should also take into consideration, "consequences related to critical infrastructure or key resources in nearby jurisdictions."²¹⁷ The impact, for example, of interconnected infrastructure systems may have significant consequences in other jurisdictions.

E. UNITED KINGDOM GRANT ALLOCATION APPROACH

The UK's allocation approach provides another option for aligning grant funds with budgets and threat priorities. In the U.S. grant allocation approach, capabilities are verified through the Threat and Hazard Identification and Risk Assessment (THIRA) process after the grant award is made.²¹⁸ The THIRA process includes an "estimation of

²¹⁴ National Research Council of the National Academies, *Review of the Department of Homeland Security's Approach to Risk Analysis*, 72.

²¹⁵ U.S. Government Accountability Office, *Critical Infrastructure Protection: DHS List of Priority Assets Needs to Be Validated and Reported to Congress*, 26.

²¹⁶ *Ibid.*, 35.

²¹⁷ United States Code Subchapter XV-Homeland Security Grants, Section 604: Urban Area Security Initiative, 185.

²¹⁸ FEMA, *Fiscal Year 2015 Homeland Security Grant Program* (Washington, DC: Department of Homeland Security, 2015), 4, http://www.fema.gov/media-library-data/1438021101390-ce3bbdde8b84b174b8212fcfd7aaa5c3/FY_2015_HSGP_Fact_Sheet_Allocations.pdf.

resources needed to meet the capability targets.”²¹⁹ The UK model, on the other hand, uses a distribution formula that includes relative need among metropolitan areas, and it includes considerations for force levels compared to estimated work load per population.²²⁰ Therefore, differences in capabilities are accounted for before the grant awards are determined. In the U.S. risk allocation formula, FEMA “has set vulnerability equal to 1.0, effectively removing that factor from the risk equation.”²²¹ Therefore, relative resource levels among MSAs to address vulnerability differences are not considered in the U.S. allocation formula.

Based on the UK model, by establishing an official risk allocation governance group in the United States, stakeholders could provide input to the allocation formula, and modifications to the formula would reflect changing priorities and existing vulnerabilities. In addition, by including subject matter experts on the governance committee, objective peer review, documentation, and validation will improve its scientific application.²²²

The UK grant system directly allocates funding to police agencies. The DOJ Community Oriented Policing Program is an example of a grant-funded program in the United States that provides direct funding to law enforcement for the specific purpose of community policing. Using this approach for UASI funding especially for smaller grant awards that do not require as much state administrative support will save the urban areas’ overhead costs by streamlining the process, which is grant funding that would otherwise be allocated to the grant’s administrative agency. Consequently, subject to the discretion of the DHS Secretary, expanding the direct allocation of grant awards to lesser funded urban areas will provide additional preparedness resources through existing budgets,

²¹⁹ Department of Homeland Security, *Threat and Hazard Identification and Risk Assessment Guide: Comprehensive Preparedness Guide (CPG) 201* (Washington, DC: Department of Homeland Security, 2013), 1, http://www.fema.gov/media-library-data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201_htirag_2nd_edition.pdf.

²²⁰ Neil Johnston, *Police Funding Briefing Paper, Number CBP7279* (London: House of Commons, 2015), 25–26, <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-7279#fullreport>.

²²¹ National Research Council of the National Academies, *Review of the Department of Homeland Security’s Approach to Risk Analysis*, 72.

²²² *Ibid.*, 110.

since overhead is reduced. Secondly, establishing the direct allocation of grant awards for specific programmatic purposes, such as the countering violent extremism or determining regional vulnerability, will directly align homeland security funding with national threat priorities and promote agency collaboration, since urban areas are required to coordinate activities among agencies as part of grant governance.

A pilot of this program, modeled after the UK and U.S. DOJ programs could be tested for applicability and effectiveness. Additionally, allocating a portion of next year's UASI grant allocation for direct funding of local preparedness will leverage resources through expanded program partnerships. As the national threat picture changes, the program funding and focus can change by fiscal year; however, a stable funding structure will be in place. According to CRS recommendations published in 2007, "terrorist threats are dynamic and evolve over time; some might argue the risk assessment methodology and attendant grant allocation process should be as agile as the adversary against which its resources are directed."²²³ The direct allocation of grant funding, based on current threat priorities, can be refocused each year and will provide a stable yet streamlined and flexible approach to leveraging limited resources across metropolitan statistical areas.

F. FUTURE RESEARCH CONSIDERATIONS

Evaluating the efficacy of a direct funding model for homeland security programs is necessary to determine whether this type of program can be duplicated nationally. Other areas for future research consideration are assessing the optimal funding allocation levels for MSAs. Currently, grant funding allocations are made based on the discretion of DHS.²²⁴ Evaluating how the funding levels are determined based on relative risk levels will provide more clarity to the process.

Further research evaluating the differences in vulnerabilities and capabilities among urban areas may help to allocate funds more effectively. For example, how do the response capabilities of a high-risk urban area that has been able to buy down risk

²²³ Masse, O'Neil, and Rollins, *The Department of Homeland Security's Risk Assessment Methodology: Evolution, Issues, and Options for Congress*, CRS-28.

²²⁴ FEMA, *Funding Opportunity Announcement (FOA): FY 2014 Homeland Security Grant Program (HSGP)*, Catalog of Federal Domestic Assistance (CFDA) Number 96.067, 12.

through homeland security funding compare to a lower risk urban area with fewer response capabilities? Terrorism threats are subjective, in the sense that human behavior is determining the targets. Regions of the country with vulnerability gaps that do not have the necessary preparedness resources are less capable of addressing threats. A basic evaluation of preparedness capabilities could be accomplished by comparing force levels among urban areas using metrics, such as police, fire and public health capability levels. The UASI grant funds the 28 urban areas at highest risk.²²⁵ How does the grant allocation formula account for risk that has been reduced through improved local preparedness and response capabilities? For example, a lower ranked urban area with fewer capabilities may be at higher risk because of lack of resources to address threats. Force analyses studies for cities, similar to the UK model, would indicate which local governments are able to provide minimum resource capabilities for specific threat scenarios. In the United States, THIRAs, which assess capability resources, are required for the MSAs that receive grant funding. Future research should address the preparedness of the lower risk unfunded MSAs, which do not complete THIRAs.

MSA resource levels vary considerably in the United States. In 2014, New York City, for example, with a population of 8,491,079²²⁶ has a sworn and civilian police force of 48,952 or approximately one position per 173 residents.²²⁷ The city of Los Angeles, on the other hand, with a population 3,928,864²²⁸ has a sworn and civilian police force of 13,706 or one position per 287 residents.²²⁹ One urban area is at higher risk, but based on this simple comparison, the other has fewer resources and receives considerably less funding. How do these types of differences correlate among the nation's top 100 urban

²²⁵ Department of Homeland Security, "DHS Announces Grant Allocations for Fiscal Year (FY) 2015 Preparedness Grants," Release Number: HQ-15-050, 1, July 28, 2015, <http://www.fema.gov/news-release/2015/07/28/dhs-announces-grant-allocations-fiscal-year-fy-2015-preparedness-grants>.

²²⁶ United States Census Bureau, "Quick Facts, Population Estimates," July 1, 2014, <http://www.census.gov/quickfacts/table>.

²²⁷ Thomas P. DiNapoli, *Review of the Financial Plan of the City of New York, August 2015* (Report 3-2016) (New York: Office of the State Comptroller New York City Public Information Office, 2015), figure 43, staffing levels, 47, <https://www.osc.state.ny.us/osdc/rpt3-2016.pdf>.

²²⁸ United States Census Bureau, "Quick Facts, Population Estimates."

²²⁹ Garcetti Eric, *City of Los Angeles Fiscal Year 2015–16 Budget*, Exhibit F, Authorized City Staffing (Los Angeles: City of Los Angeles, 2015), 36, http://cao.lacity.org/budget15-16/2015-16Proposed_Budget.pdf.

areas? Further study using the risk model and relative capability levels would help define which urban areas, although at lower risk levels, are actually significantly less capable of responding to major threat scenarios. To conduct this research, the top 100 urban areas could be evaluated in terms of risk, capabilities and vulnerability gaps. Due to the subjective nature of terrorism events, understanding relative force level comparisons among urban areas is critical for analyzing national preparedness. If each region of the United States is vulnerable to terrorism, then evaluating capabilities among the MSAs should be a priority for future research.

G. CONCLUSIONS

The President's budgets in FYs 2013 and 2014 proposed establishing a National Preparedness Grant Program that consolidates 16 grants into a single program to improve effectiveness; however, Congress did not approve the grant consolidation proposal.²³⁰ Consequently, changing the grant process to allocate funding into one risk-based allocation program to improve grant management does not appear to be an option. FEMA, however, can independently initiate a variety of options to improve the effectiveness and efficiency of its grant programs.

Recommendations presented in this thesis are some approaches that could be applied to improve the grant allocation process. First, by validating the weighting factors used to determine the relative risk rankings through an independent peer review, funding allocations will better align with risk. Second, by providing more transparency into the threat and vulnerability assessment process, local urban areas will be assured their relative risk rankings reflect the latest threat information and will have a better overall understanding of their resource gaps. Also, by providing a more flexible process to account for potential threats or trends, urban areas can more appropriately realign grant funds and programs with vulnerabilities. Using expert peer reviews to validate the critical asset criteria and development process will result in better risk management and resource allocation decisions. Lastly, evaluating the direct allocation of funding for urban areas

²³⁰ Maurer, *National Preparedness: FEMA Has Made Progress, but Additional Steps Are Needed to Improve Grant Management and Assess Capabilities*, 6.

based on the UK model may help to align needs with funding more effectively to enhance program capabilities. This approach, depending on the discretion of DHS, could help provide a flexible grant allocation model to address the evolving threat environment. The grant funding process would be more efficient, since a layer of program administration is removed from the process, and funding is applied directly to the metropolitan statistical area, thereby ensuring alignment of funding with risk. Addressing these issues will help urban areas better understand the grant allocation process to build and sustain programmatic needs.

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